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## General Scientific

### SURGICAL SIGNIFICANCE OF JAUNDICE.

A. WEISE HAMMER, M.D.,  
Philadelphia.

Jaundice is a syndrome and not a medical or surgical entity; its persistence beyond the duration of a few days is always a matter of ominous import.

Jaundice is a symptom dependent upon disease in different organs or parts of the body and no hard and fixed lines can be laid down that it may occur only under certain circumstances or conditions.

In nervous subjects, there is often noted the existence of an "emotional" jaundice; again, in that affection designated acute infectious jaundice, infectious febrile icterus, or bilious typhoid, there is an acute infective process in which jaundice is conspicuous and the range of temperature is characteristic. The disease is often epidemic in character, and is probably analogous with Weil's disease.

From a surgical viewpoint, jaundice is always obstructive, for at some point in the bile ducts there is an obstacle to drainage, either from within the lumen of the duct (that is an infection which causes swelling of the mucous membrane and reduction of its carrying capacity), or a mechanical obstruction from foreign bodies, be they calculi or tumors or, as stated by Osler, the not infrequent occurrence of occlusion may be occasioned by the presence of lumbricoid worms, which gain entrance through the duodenal orifice.

Obstruction may likewise be caused by pressure and interference from without, due to neoplasms, adhesions, localized peritonitis and plastic exudates (nature's attempts at healing of perforations and ulcerous conditions), at or about the duodenum or the pyloric end of the stomach.

It is generally conceded that all jaundice is due to obstruction of the outflow of bile and the absorption of its pigment through the hepatic lymphatics, for there is no absorption of bile pigment and consequently no jaundice when the common bile duct and the thoracic duct are both tied.

There is absolutely no reason to support the theory of the existence of a hematogenous jaundice, in

which the pigment is set free in the blood without the mediation of the liver; for it has been shown that the agents that set free the hemoglobin also produce obstruction of the small intra-hepatic ducts, thus favoring the absorption of bile and the presence of bile-acids in the urine, showing that absorption of bile has taken place.

Very often in the persistence of jaundice the question arises, are we dealing with a case of gall-stones or a malignant neoplasm? Thirty years ago Courvoisier,\* in an elaborate study of gall-bladder affections, asserted that a tumor in the region of the gall-bladder with jaundice was almost always indicative of malignant disease. Today we know that cancer of the gall-bladder producing jaundice gives rise to a painless tumor which comes on slowly before the jaundice, the latter becoming more marked and more intense with the advance of the affection. As the disease progresses, the oncoming of the cancerous cachexia often masks the deeper hue of the jaundice, the relatives of the patient believing that the disease is ameliorating, whereas, to the experienced eye the insidious arrival of the cachectic cast is all too apparent. Ordinarily, carcinoma of the gall-bladder is painless; this is especially true when the cancerous invasion is secondary to some other organ.

So that, given a patient suffering a persistent, increasing jaundice, with little or no pain, the presence of a nodular mass in the hepatic region, absence of all other symptoms, save the clay-colored stools and the dark, porter-colored urine, a diagnosis of cancer of the gall-bladder can quite correctly be made out. Especially is this true in one past the sixtieth year and of the female sex. Many years ago, Naunyn asserted that such lack of symptoms pointed strongly to cancer of the gall-duct, stating that at least fifty per cent. of all cases of chronic jaundice are due to cancer of the biliary tract, and that other evidence is of a negative character.

Among the causes of obstructive jaundice, we list first cholangitis, with or without stones. Inflammation of the bile ducts and of the gall-bladder usu-

\*Courvoisier, Pathologie und Chir., d. Gallenwegen, 1890.

ally result from the continuous extensions of a catarrh of the duodenum along the common duct into the hepatic and cystic ducts and into the gall-bladder. The persistence and the severity of the catarrh of the bile-ducts and of the gall-bladder largely depends upon the presence in them of some mechanical or microbic irritant, as gall-stones, vermiform parasites or bacteria. The jaundice in these cases usually disappears in the course of a few days and distinguishes an ordinary cholangitis from the existence of cholelithiasis.

Gall-stones are often difficult to differentiate from malignancy. These include tumors of the liver, of the pancreas, and of the duodenum. As a rule, the presence of a tumor with jaundice is against the existence of a simple stone in the common duct. Mayo Robson says the history of slight colics and intermittent jaundice in the early stages, with hectic symptoms, i. e., fever, sweat and chills, and without tumor, favors simple stone obstruction. As a general rule, stones in the common duct give rise at some period to jaundice, although, in more than twenty-five per cent. there may be no jaundice. Stones in the cystic duct may cause great thickening of the common duct, giving rise to jaundice.

The relationship between chronic pancreatitis and cholelithiasis is an intimate one, indeed, according to the Mayo brothers, chronic pancreatitis as a cause of jaundice, has in association a history of gall-stones. This view obtains generally; Riedel, Körte, Moynihan, Mayo Robson and others who have made a careful study of pancreatic diseases, believe that interstitial inflammation of the gland is usually secondary, the infection or irritation passing up the duct of Wirsung and having its usual origin in the common bile duct. Moynihan asserts that in the vast majority of instances an impaction of a stone causes infection of the common bile-duct, which in turn causes inflammation of the pancreas. In the form most commonly seen, the head of the pancreas is so enlarged by chronic inflammation, that the common bile-duct is compressed and jaundice results.

In most instances, the gall-bladder is found small and contracted, indicative of secondary involvement of the pancreas from long-standing gall-stone disease. When the gall-bladder is dilated, the existence of the gall-stones must have been of shorter duration, and failed to set up any structural or other changes in the gall-bladder; thus, a difficulty in the diagnosis. For, as previously stated, the persistence of jaundice, the existence of a nodular mass at the position of the gall-bladder and absence of other symptoms, according to Courvoisier, point to malignancy in the gall-bladder. Moynihan believes that the jaundice in malignant disease is "greener and deeper," and he differentiates the presence of pancreatitis by the positive reaction of the Cammidge test in the urine.

The painless condition and the marked jaundice readily distinguishes hypertrophic (Hanot's) cirrhosis of the liver, for percussion shows the greatly enlarged area of hepatic dullness. In atrophic cirrhosis, there is usually an alcoholic history and an enlarged spleen.

Hemolytic jaundice, a condition none too well understood, resembles other medical entities in certain salient features. This pathological state, which shows changes in the spleen and the liver, is said to be congenital, familial, and acquired. In this affec-

tion the disease may assert itself at birth, or in early childhood or, again, at adolescence.

The etiology of the disease has not been clearly made out. It may affect several members of the same family. The jaundice which is of mild degree is persistent, and there is absence of itching. There is splenic enlargement, with either enlargement or contraction of the liver. There is a peculiar fragility of the erythrocytes, while urobilin and urobilinogen may be present in the urine and there is frequently found in association the existence of gall-bladder disease.

In brief, hemolytic icterus is a disease of splenic enlargement, with changes in the blood and destruction of a large number of erythrocytes, these disintegrated red cells overwhelming the liver, the gall-bladder and the various ducts and channels.

A close study of hemolytic icterus has brought to light the close inter-relation between spleen and liver; hence, the operation of splenectomy for atrophic cirrhosis of the liver. Mayo<sup>1</sup> emphasizes the great similarity between hypertrophic cirrhosis of the liver and hemolytic jaundice and the difficulty in diagnosing certain types of cirrhosis, both hypertrophic and the atrophic from splenic anemia, even at operation.

Anemia<sup>2</sup> is not a necessary concomitant of this form of jaundice, but when present may simulate pernicious anemia, and Chauffard believes that "There is an icteric form of pernicious anemia which, when accompanied by diminished resistance and reticulated red cells, represents the least compensated form of hemolytic icterus."

Giffin<sup>3</sup> believes that this affection from a clinical standpoint occupies a position in a group of diseases, with cirrhosis of the liver, syphilis of the liver, and obstructive forms of chronic jaundice, on the one hand, and pernicious anemia, splenic anemia, leukemia and Hodgkin's disease, on the other.

The jaundice is of the acholuric type, there is no bile in the urine, no pruritis; it is of a chronic nature and of a comparatively deep or of mild grade.

In obstructive jaundice there is cholic urine, and often acholic stools. The same investigator calls attention to the deceptive clinical picture presented by syphilis of the spleen. "An enormous spleen, deep chronic jaundice, cirrhosis of the liver, and even the pernicious-anemia type of blood picture, have each been observed as associated with, and probably a result of syphilis." Although no instance has so far been reported in which the exact syndrome of hemolytic jaundice, complete in all its details, has been reproduced by syphilis. The operation for cases of hemolytic jaundice is splenectomy.

Among the many varieties of jaundice that we mention, in passing, is the toxemic form, brought about by phosphorus, arsenic and snake venom. The poisons of infectious diseases: malaria, scarlatina, pneumonia, etc. The special ictero-genic poisons, including acute yellow atrophy of the liver, icterus gravis, Weil's disease, etc.

The ordinary encountered icterus neonatorum as the jaundice slightly affects the face and breast of the new-born child, is of little clinical interest; but

<sup>1</sup>Mayo, W. J., *Lancet*, 1916, vol. ii.

<sup>2</sup>Balfour, D. C., *Internat. Abstr. Surg.*, 1918, vol. xxvi.

<sup>3</sup>Giffin, H. Z., *Surg. Gynec. and Obstet.*, 1917, vol. xxv.



where the whole body is jaundiced, the oncoming of a fatality is to be looked for. Universal jaundice in the new-born is an indication of the existence of either Buhl's or Winskel's disease. Buhl's disease is a parenchymatous inflammation with fatty degeneration of all the organs and the presence of this marked jaundice. In Winckel's disease there is an acute hemoglobinuria. Both of these diseases undoubtedly find their etiology in infection through the umbilical vein.

The following varieties of jaundice are described by many authorities, but their existence is denied by others: the jaundice occurring a number of days after hemorrhage; that following in the wake of starvation; the jaundice that results from shock, fright or great mental emotion.

218 South Fifteenth Street.

### THE USE OF SELENIUM AND TELLURIUM IN THE TREATMENT OF CARCINOMA.

J. B. WEIGHART, M.D.  
New York.

There has been a great deal of comment in the medical literature on the use of selenium in the treatment of carcinoma, and as I have been using this element for a long time, I thought it advisable to relate my experience with it.

I have a great many cases of carcinoma under my care at present, many extending over a period of five years. In those cases which exhibit a developed carcinomatous tumor, my therapy consists first in establishing a normal functioning of all the organs as far as possible. I then modify the pathological metabolism by the administration of selenium and tellurium preparations up to the time I put the case in the hands of the surgeon for the removal of the tumor wherever this is possible. I will not discuss at present the results I have obtained, or the results of other physicians who are also using this treatment. As soon as the diagnosis is made, I administer selenium internally up to the point of saturation. After the surgeon has operated, I retake the case and again prescribe selenium up to the full cicatrization of the wound, and continue the treatment with remissions and intermissions during the entire life of the patient.

In some cases I have given very large doses of selenium, with no bad effects. When I began the use of selenium, I had some disagreeable results, but found later that they were due to improper handling or impurity. I found one very pure preparation was spoiled for use by too much power being used in compression into tablets. I traced my bad result by a change in color and consistency of the tablet.

In all cases where selenium was administered, the body weight increased, and there is nothing to fear in its administration, provided the preparations are procured from a reliable manufacturer, with sufficient guarantee of purity and resorbability; the last property is very important. Many selenium compounds are not resorbable at all. Others combine with the tissue first penetrated into an insoluble precipitate causing pains, and do not enter into the circulating liquids. Even the best preparation I am able to obtain is resorbed only 40 per cent, and 60 per cent. is excreted through the fecal discharge, but without any formation of undesirable by-products.

In families where there is a history of many cases of carcinoma, every case of illness of obscure acti-

ology may be a prodromal disturbance which in later life may manifest itself as carcinoma.

I have treated cases of young women suffering from nervous disturbances with underweight, menstrual irregularities and a history of carcinoma in the family. The weight increased, the nervous symptoms disappeared and the menstrual disturbance became normal under the selenium treatment. If I find any reasonable indication for the use of selenium, I prescribe, properly controlling the original manufacturer of the supply, as I know it can do no harm and may prevent a carcinomatous development later. If any reasonable indication is found for any other pharmacotherapy, it may be prescribed and will not be incompatible.

To the physician who gives his attention to the prophylactic treatment of diseased conditions, there is very little real credit given by patients. There is not as great psychic effect nor as much confidence established as in the relief of a slight pain. Yet it is in this preventative treatment of carcinoma that the medical profession will be able to control the spread of this disease, by taking advantage of this knowledge of the prodromal symptoms.

Each disease has its characteristic surroundings. In fact, every natural occurrence has its own natural surroundings. A man walking in the streets of Manhattan will have no fear of seeing a rattlesnake, but if he happened to be in the Mississippi Valley or in an open, fairly well irrigated country, this particular danger increases. So also with the fear and prevention of carcinoma, we must know the characteristic dangerous surroundings of the inclination to carcinoma.

I have stated in previous papers that carcinoma is found more frequently in certain races and certain families. The characteristic properties of the special inclination to carcinoma are developed in the highest degree in the individuals of the inclined families who are particularly inclined to carcinoma.

I have also stated in a previous paper that the suboxydation of sulphur is the principal metabolic change in the inclination to carcinoma, according to the chemical research of Oefele. The principal part played by the sulphur of the body is in the development of the skin and its accessories.

The entire skin is highly developed during youth when the sulphur metabolism is strong. In those in whom there is a suboxydation of sulphur, the hair, nails and teeth are strong and highly developed. The hair is abundant. The individual hair is long, and strong, and grows rapidly. This is noticed by the frequency with which it becomes necessary to have the hair cut or shaved. Places on the skin, usually devoid of hair, will show a slight fuzz, particularly over the thorax and arms. Women may show a tendency to grow hair around the mouth and axilla.

The finger and toe nails are hard, straight, never curved at the tips, thick, and grow rapidly. The teeth resist decay.

The well developed skin is cosmetically considered very desirable, but it is usually pale. The epidermis is well developed, but the uppermost capillaries are inclined to constrictions with the second deeper layer of capillaries in hyperaemic condition as a rule. The distribution of the blood of the capillaries is interfered with, causing an anemia of the epidermis and an hyperemia of the internal organs.

The blood pressure is usually above the average. The sudorific excretion of the skin is less than in the average person and the water excretion through the kidneys is above the average. During the twenty-four hours, the average person has a high tide of urine excretion about two to three A. M. Carcinomatous people and people inclined to carcinoma, show this high tide two or three hours later.

As far as a large partition of chlorine passes normally through the perspiration, the specific gravity of the urine is decreased with an increased amount of chlorine not only in cases of developed carcinoma, but also before a carcinomatous tumor is evident. The sulphur oxidation is decreased. The amount of performed sulphuric acid in the urine excretion is decreased. The amount of partially oxydized sulphur of the urine is increased and particularly the excretion of difficultly soluble and insoluble sulphur compounds through the feces is increased.

175 W. 72nd Street.

### PALUDISM TREATED BY INJECTIONS OF SILVER SALVARSAN.

FREDERIC S. MASON, M.D.,  
New York.

S. T., an Italian soldier who came to America after the war, gave the following history:

Patient had lived in a malarial district of Argentina prior to the war, but did not have frequent attacks of fever until his return to Italy, when that country entered the war. He was stationed for some time on the Isonzo River and shortly after had severe fever so that he was in the hospitals almost constantly until the armistice. In Italy he was treated with quinin and arsenical preparations (internally) and with cacodylates hypodermatically, but was never entirely free from the recurrent attacks of fever. More recently he was unable to tolerate quinin in effective doses, and came to New York in the hope of obtaining relief.

Patient, however, had the same attacks here as in Italy at intervals of exactly fourteen days. These were most alarming and exhausting. The fever, which always reached 105°F., began generally at 6 P. M., and lasted several hours, leaving him in a most exhausted condition, so that he was unable to work regularly. Frequent examination of the blood before and during an attack were made by me personally and by the Board of Health of the City of New York, but no plasmodium or other organism was found in the blood. This man did not yield to any anti-malarial treatment, such as I had seen given in British India and in the Philippines. The Board of Health's special diagnostician sent to investigate the case was unable to suggest any newer treatment. As the man was incapacitated for work most of the time and anxious to do anything to obtain relief, I decided to try silver salvarsan and began on August 26, 1921, with an initial intravenous dose of 10 centigrams. One week later 20 centigrams were injected. Since that date the man has had no symptoms of malaria. He has put on weight and now has a fine healthy appearance. Previously he looked anemic and cadaverous. The man is still under observation and is doing hard manual work. Prior to the administration of the silver salvarsan the patient had a Wasserman test which was negative.

16 Fifth Avenue.

### THE RELATION OF THE MEDICAL MAN TO THE PUBLIC.\*

GEORGE W. WHITESIDE, ESQ.,  
COUNSEL TO THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.  
New York.

Over half a century ago, Dr. Oliver Wendell Holmes observed that the medical profession for two thousand years had devoted itself to the pursuit of the best earthly interests of mankind and yet was assailed and insulted without by such as are ignorant of its infinite perplexities and labors.

Today there is less cause for such ignorance of the labors and difficulties of the medical profession and, consequently, little justification for abuse of the profession. That there is, however, abuse and discrimination today against the qualified and tested medical man is evidenced by the character of bills that are agitated and accelerated in our law-making bodies and by some of the laws that are passed that are inimical to the interests of the profession. The realization of this unfortunate and serious situation by the profession makes the consideration of the relation of the medical man to the public of great and timely interest.

Medicine today has lost much of its ancient mysticism and mediaeval dogma and rests upon the substantial findings of science and progress in all branches of science has been utilized in the practice of the healing art. The application of approved scientific principles to the healing art has made necessary the raising of the educational standard in medical schools throughout the country, in order that the practitioner shall be provided with an adequate scientific foundation for his future work. There has been concerted action by the medical schools of the country through such agencies as the Association of American Medical Colleges to bring about a discussion of the problems of medical education with the view of maintaining high scholastic standards. For the like purpose the medical licensing boards of the various States in the United States have organized the Federation of State Medical Boards and the officials of the various States throughout the Union charged with the duty of examining and licensing medical practitioners meet in annual congress and exchange views. The executives of the great hospitals of the country likewise leave annually the scenes of their labors and travel afar to meet together to give to each other the benefits of their experience in this field in the hope of promoting greater efficiency and lessening human suffering.

In all of these problems the European point of view is not overlooked, and comparisons of our system of medical education, licensure, hospitals and public health with the systems prevailing in Great Britain and France have been made, and at the annual congress this year of the Federation of State Medical Boards, a paper on the subject of "Medical Education and Licensure in America as Viewed by European Visitors" was read by Dr. Walter L. Biering, secretary of the Federation, in which the author thoroughly analyzed and considered the views of eminent foreign critics of our institutions for medical training. The problem of public health, from the standpoint of the medical man, has grown from a purely local question to one of national importance. Local jealousies are fast disappearing and

\*Address before the Society of Medical Jurisprudence at the New York Academy of Medicine, March 14, 1921.



support and encouragement has been given to efforts to treat the problem of public health as a national one requiring the co-operation of medical men in every State in the Union. Support, therefore, by the profession to the establishment of a national board of licensure has been unselfishly given, and such a board has been functioning for some time as a purely voluntary organization and its certificates are accepted by the local licensing boards of many States. To what end is all this training, education and standardization of medical men directed? The raising of the standard for licensure, the increasing of the time to be spent in training entails upon the candidate for license a very material increase in expense and gives him no assurance of a similar increase in return of income in his subsequent practice. So that from the financial standpoint the efforts to maintain a high standard for licensure cannot be said to be of financial benefit to the practitioner.

The practitioner does doubtless receive a status in society at large and a pleasure in the pursuit of scientific investigation and research from the training which he receives, but these are mere by-products of that training. The training is directed toward and prompted by the motive and intention of procuring for the public at large the best service in the maintenance of public health. The insistence upon the preliminary high school course, two year pre-medical course and four year curriculum for the granting of an M. D. degree and in some jurisdictions even higher requirements is designed to provide a safeguard for the public against the practice of medicine by those who are unfitted to appreciate and understand the principles of science essential to such practice. If the standard were lowered so that a common school education supplemented by a three-year course of six months each or an eighteen months course taken consecutively, were the requirements for admission to practice the healing art, would the profession not suffer an influx of inferior and ill-trained men and would not the public health seriously suffer thereby? Despite the fact that the answer to this inquiry is patent, there are in this State upwards of twelve hundred men who are practicing the healing art and treating human disease contrary to law, whose training and education have not in general been any better than the low standard I have referred to and these men now seek before our Legislature, as they have sought before, but with greater likelihood of success in their selfish effort wholesale licensure based upon no test, examination or mental qualification other than their pursuit in an unauthorized and unqualified school of chiropractic of courses in certain branches of science that are of high school grade.

The concrete example of the public's indifference and lack of understanding of the importance of adequate educational standards for all who practice the healing art is shown by the fact that through persistent and dangerous propaganda emanating from a central bureau, the chiropractors have secured licensure in seventeen States under the low standards already referred to. In New York State they seek this year such license. In the main, the chiropractic licensing statutes contain waiver clauses by which those practicing at the time the act takes effect are permitted to continue their practice and those that thereafter shall practice must qualify by taking a

three-year professional course in a chiropractic school. The three-year course, however, provided in the schools that furnish such training, consists of from four to six months each year and an hour is from thirty to forty-five minutes. The total yearly output of the Palmer School at Davenport, Iowa, which is probably the largest in the country, is greater than that of all the medical schools of the United States combined. The National School of Chiropractic in Chicago has three hundred students registered annually and provide a three-year course of six months each year, with forty-five minute period of instruction. An important course given in these colleges is one in salesmanship to equip the chiropractor to sell his goods to the public. The school furnishes the chiropractor with sample advertising matter, copies of their publications with the name of the individual practitioner printed in large type for advertising purposes. The chiropractic schools frankly take the position that chiropractic is a business proposition for those who undertake it. Thus it is that chiropractic legislation sought throughout the country has as its basis the conferring of a special privilege for a given class of the community for a purely selfish and financial gain.

The public evinces but mild interest in the finished product of medical education and less in the training and tests that the licentiate undergoes before he is permitted by the State to practice his profession. The standards that have been set and maintained by which the fitness of the medical man has been measured, have been made high and kept high by the profession itself. Were the medical course to be reduced to two years and the pre-medical education made correspondingly inadequate, the public response to such retrogression would, in my judgment, be negligible. Possibly, the public would be sufficiently musing on the subject to regard such a movement as beneficial to their interests by increasing the number of practitioners and thereby creating competition that would lead to a reduction of the cost of service. Public ignorance and indifference to the problems of medical licensure are astounding. Careful inquiry into a medical man's qualifications and training before he is employed on a case by a patient, I should say, is rare and in those exceptional cases where such investigation takes place, it is usually unnecessary because the physician or surgeon so selected has reached a generally recognized prominence in his community. It is often what the neighbors say concerning a physician, whether that judgment be based upon his pleasant manners, his church or fraternal connections, or his good appearance, that often creates for him a reputation for skill. I should say it is exceptional for the average physician to be employed in the first instance by a patient by reason of the patient's investigation of the physician's early academic training, his medical education, hospital or dispensary experience. Were the majority of patients asked what preliminary education their physician had received, from what college he was graduated, from what medical school he received his degree, in what hospital he had been an attendant, I opine the responses would justify my statement. Ask likewise the patients who patronize chiropractors, osteopaths and practitioners of similar cults and learn whether they have ever thought of inquiring into the qualifications of such practitioners. You will, doubtless, find upon such inquiry that

the patient has been brought in contact with such unqualified practitioner through some attractively worded advertisement of a character disparaging to the medical profession or upon recommendation from one who originally was so brought in contact with the practitioner. I have been told when engaged in the prosecution of chiropractors whom I knew from investigation were ignorant men of small mental capacity, that they had among their patients people of refinement, education and professional and social position in the community. I have been told by the courts before whom I have appeared in the prosecution of such practitioners that people of high station in professional life in the city had written letters of commendation of such practitioners to the court before which they were convicted. In a recent instance I learned that a chiropractor who had quit common school at the age of twelve years, had been a cabaret singer and habitue of the white light district of Broadway and after a twelve months' course in an unauthorized and unrecognized so-called school of chiropractic, was openly advertising himself as a doctor of chiropractic and undertaking chiropractic adjustments in cases of serious human diseases. These unauthorized and poorly equipped schools appeal to an unthinking and uneducated class of the community. One of their potent arguments in the obtaining of students is that the course is a short one, that no preliminary education standard is needed, that a clerk, a bookkeeper, or a man in any other walk of life, whose income is meagre can make from five thousand dollars to ten thousand dollars a year by practicing chiropractic. The appeal is made to man's cupidity and results in a great influx of students of very low mental grade.

The public patronizes the quack, the ignorant mystic, the boastful chiropractor in this day of enlightenment and scientific progress, with about the same enthusiasm, confidence and hope that our early ancestors both of high and low station sought relief from disease in one or another of the delusions of their day that have passed into oblivion. We look back upon such delusions and smile at the credulity as well as the ignorance of those who relied upon such futile and foolish fallacies.

The necessity of placing some safeguard about the practice of the healing art was recognized in the Dutch colony of New York in 1652. The early Dutch records show the refusal of the authorities to permit ship barbers to dress wounds or minister any potions on shore, evidencing thereby the existence at that time of some early basic law on the subject. The earliest colonial law in the State of New York is found in the Duke of York's laws enacted about 1665, which followed the Massachusetts Law of 1649 and had for its purpose in addition to providing authority for those who were competent to practice the healing art, the purpose "to inhibit and restrain the presumptuous arrogance of such as, through confidence of their own skill or any other sinister respects, dare boldly attempt to exercise any violence upon or towards the body of young or old, one or other, to the prejudice or hazard of the life or limb of man, woman or child."

It appears, therefore, that public indifference to the qualifications of those who legitimately or otherwise engage in the practice of the healing art was early recognized in this country and that protection against such indifference and ignorance was provided by statutory licensure requiring adherence to some standards by the medical practitioner.

Under our present laws the establishment of these standards and the adherence to them by the medical practitioner afford inadequate protection to the public unless the standards be similarly applied to all who engage in the healing art, and those standards established for all practitioners must be strictly enforced as to all. We have seen that the medical profession has taken the initiative in the establishment of the standard, but the government has not done its part in protecting and preserving the integrity of that standard against the operations of those who have not been so tested and trained for medical practice.

Under these conditions, the law constitutes not a protection to the licensed practitioner of medicine, but a discrimination against him.

The licensed medical man, therefore, assumes heavy obligations for his privilege legally to practice medicine both in the preparation which he must undergo for license and in the legal duty that he owes to his patient. It would be only fair to assume that the law in requiring such careful training and imposing such strict liability would accord to the license which the State grants the highest degree of protection.

In other departments of life, rank, title and privileges which are accorded only to those who have met definite legal qualifications and requirements or who have a recognized official status are protected by the strong arm of the law. One assuming falsely to impersonate a naval or army officer or even a police officer or other similar employee of the government is promptly punished for his fraud. The government is jealous to protect itself against such misrepresentation by unauthorized persons. What, however, is the duty of the government toward a medical man to whom it has granted, under the exacting provisions of law, a license to practice his profession? Can there be any doubt that the government owes to him the same protection that it accords to others that have been given rank, title or privilege after meeting strict legal requirements? You need but look around you in practically every State in the Union to observe the indifference of public officers to their duty in this regard. The statutes which provide for the protection against those unauthorized and unqualified to assume the title of doctor or to perform the functions of a physician are rarely enforced, though openly notoriously and often violated. The result is that the medical man is forced on the economic side to meet the competition of the quack. The quack grows rich and prosperous in his unlawful and injurious practice, whereas the physician bound by a high sense of honor and responsibility, law abiding, cannot stoop to the methods to meet such competitor. The profession, I believe, is thoroughly alive to this condition and is looking for a solution. Adequate enforcement of law, both criminal and civil, against the unlicensed or unqualified practitioner, would soon bring its results. We have adequate laws but woefully deficient enforcement in this particular field. We have public indifference to the enforcement of these laws affecting medical licensure and that public indifference is the great problem that must be met and overcome before medical licensure is placed upon as high and firm a standard in law as it is in science.

Originally because of public indifference to the creation and maintenance of a high standard of licensure in medicine, the profession appreciated the importance of such standards and established them.



The profession will likewise have to generate the necessary power and force to make the laws that create high standards for licensure potent and effective through adequate enforcement. Public indifference to enforcement of law, whether due to ignorance or apathy, usually causes a lack of enforcement. When public sentiment is aroused in favor of enforcement, prompt response from the officers of the law quite invariably follows. The main problem of medical licensure which now confronts the profession is one that depends for its solution upon a public education of the underlying reason for and public importance of medical licensure and the dangers to public health that are sure to follow public indifference to this problem. Legislative and judicial action for the correction of abuses in all departments depends in great measure under our form of government upon the stimulating force which is generated by an aroused public sentiment. The creation of high standards of medical licensure having been accomplished, the just and adequate enforcement of such standards now depends upon the will of the people. A carefully considered and vigorous campaign of public education that will convince the laity of the importance of this problem to them will bring about a decided change in public sentiment and a prompt enforcement of laws requiring adequate education and scientific training by those practicing the healing art.

If the medical profession are convinced of the soundness of this observation, there should be no hesitation in giving effect to the conclusions. A campaign of public education on this matter is not an activity for which the medical man's scientific training appropriately fits him. The presentation of facts in such manner as to grip the public interest and to arouse a public conviction is a profession in itself. To undertake a proper campaign of public education on the matter of the problems of medical licensure would require the use of experts who have been trained in publicity work. During the war the government recognized the necessity of the use of such agents and employed them to advantage.

While the medical profession has been inactive to this method of educating the public, the propagandists of various cults and healers have developed publicity organizations with little regard to the financial cost and less respect for the truth of their claims. They claim in the main to succeed where the medical man fails. They lure the sick and the distressed into false hope in the virtue of their methods or philosophy; they endeavor to create a confidence in their system by destroying the faith of the public in medical science. This activity of selfish, greedy and unscrupulous propagandists who defy the laws requiring adequate standards of education and training for the practice of the healing art, who lack the necessary intelligence, education and training at the very threshold of their experience with a patient to make a diagnosis, who sweep aside with one false claim the well established scientific truths concerning the human organism, is now allowed to go unchecked. In addition to public indifference to the importance of the maintenance of adequate standards for licensure in those practicing the healing art, we have the destructive force of propaganda carried on for the purpose of undermining and destroying public confidence in the medical profession. The medical profession has not sufficiently answered

these false claims, has not rebutted these absurd contentions, has not exposed the fallacy and fraud that lurk in them; they have rather been content to rest and rely upon the ultimate recognition by the public of the truth. The results of such investigations as have been made under the auspices of medical organizations have not been adequately brought before the public. Such confidence and faith in the public is well founded, provided the public are given facts in properly digestible form, which will support a conviction of truth.

The plan which I contemplate for public education on this subject requires an entirely different point of contact between the medical profession and the public from that which has heretofore existed. The medical profession's relation with the public has largely been individual; great medical organizations have in the main existed for making the medical man more efficient in his service to the public and in that regard have been most beneficial influences in the community. But there should be, in my judgment, an adequate means of expressing the congregated judgment of the medical profession to the public on all matters concerning which the public seeks information from the profession. The fundamental truths upon which all scientific men must agree can and should be presented to the public with convincing force. The lying propaganda should be answered and exposed and for this purpose systematic and persistent discussions of medical truths, ideals and problems in the public forum and the lay press should be undertaken.

The methods by which such a campaign of education should be carried on would have to be decided upon after most careful consideration and to this problem should be brought the thought of the best men in the medical profession and the advice, counsel and direction of keen men of integrity and experience who are familiar with methods of ethical publicity.

I believe it is necessary to establish under proper auspices a bureau for the education of the public regarding problems of medical licensure. The field of such a bureau is as broad as the practice of medicine and as wide as human welfare. Its functions and duties would be primarily to establish between the medical profession and the great mass of the public a contact which now, in my judgment, is totally lacking; to engender a public sympathy and appreciation for the ideals and truths of medical science, to attack without fear the lying propaganda of the unqualified practitioners of all types; to expose mercilessly the false claims and philosophy of those cults that deny the fundamental truths of science; to allow no false and dishonest attack upon the medical profession as a body to go unchallenged or undenied; to hold the officers charged with the enforcement of law to a strict account in the performance of their duty as it affects protection of the public against unlicensed and unauthorized practitioners of medicine; to build up, in other words, an organization founded on truth, honesty, fair dealing and human experience, the representatives of which will fearlessly enter forums of public discussions and debate and meet all comers courageously and effectively and will supply to the lay press at appropriate times and in fitting form, such material as is needed in this campaign. This may sound like an ambitious program, but it is no more than ade-

quate to meet and overcome the destructive forces that are now at work poisoning the wells from which the public draw their present supply of information. The medical profession in this country is an army of defense against the invasion of disease. Its members serve faithfully and tirelessly without the glamor of public recognition or applause. Its morale in carrying on the fight is maintained through pride of sacrifice in the service of humanity. The profession is the refuge of the public when fear engendered by the ravage of epidemic brings the public in supplicating masses for its help. When the danger is passed the public gives little thought to the service which the profession has rendered in the emergency. The public's reliance upon the profession in times of epidemic is but the result of the publicity of facts concerning the epidemic and the bringing home to the lay minds of the dangers of disease at such a time and the necessity for medical help. In such circumstances, the public do not seek out the quack, the chiropractors and the numerous other unqualified practitioners, for they fully realize what weak reeds these charlatans are in such an extremity.

Publicity of the facts during epidemics through the lay press brings the public to a realization of its dependence upon the profession. If a public response follows under such conditions, due to a public understanding of the facts, is it not fair to assume that by a constant persistent presentation of the facts of science, of the necessity of having trained and tested men only practice the healing art, that the public will soon appreciate the importance of relying upon such men for counsel, advice and help in matters pertaining to health, and that they will soon discard the false and painful delusions which ignorance of the facts of science has caused them to embrace. What a broadening field of usefulness the profession of medicine will have when such a campaign of education begins to bear its first fruits! What a sense of responsibility the profession will consequently feel and what an incentive and encouragement there will be created in the physician to measure up to his responsibility and discharge to the best of his ability his duty to an appreciative, trusting and responsive public!

#### Discussion.

Dr. Wendell C. Phillips: I am in hearty sympathy with every word. It is of prime importance that matters relative to the public health should be brought before the public and that the public should become aroused to the dangers before it in these matters under discussion.

Perhaps I can best illustrate the point I want to make if I say that there suddenly appeared before the voters of California and Washington a referendum and the voters were asked to vote on three points: 1. Shall vaccination be compulsory? 2. Shall animal experimentation be permitted in this State? 3. Shall the different cults, Chiropractors, Christian Scientists and Osteopaths be permitted to practice? This third point was suddenly brought before the public and they were asked to express their opinion upon it. I went to a meeting of the Trustees of the A. M. A. last October and there came in wild appeals from many physicians, appeals not to protect their own interests or their own profession, but appeals that they might be the humble instruments for protecting the public against such dangerous legislation as that confronting the people at that time. We did come to their help, but through our printing press material. It was shown that without animal experiments there could be no antitoxins employed in diphtheria; there could be no anti-typhoid vaccination and that smallpox would become rampant. This accurate information went to the public and some for the first time in their lives learned the real facts. It then began to be noised about that without animal experiment cattle could not be protected against cowpox and tuberculosis, and that these diseases would become rampant among cattle. This aroused the

farmers and those who were interested in animal industries.

A surprising thing that Mr. Whiteside has brought out is that the laws governing the practice of medicine are very strict. It is the physicians themselves who for the protection of the public have been responsible for the strict medical laws of the State, and it is those belonging to the cults that are trying to get around these laws and are doing so much to break down the great work that has been done.

It is surprising that the people and the legislators should be so ignorant on this subject. Last year the legislators of the Empire State passed a measure that would have permitted the chiropractors to practice under State licensure. The provisions of this bill were that the licenses should be issued by the Chiropractic Society, utterly ignoring the medical profession and the public, and the legislators would have let this bill pass if we had not gone before the Governor. And the Governor would have let it pass if we had not shown him that it was to the best interest of the public that men wishing to practice medicine should pay the same attention to medical laws and pass the same examination as the rest of us. The point that I would emphasize is the woeful ignorance of the public to its own best interests and its own protection. Fortunately the Governor, last year, refused to sign the Chiropractor bill and we have a Governor this year who will not sign it.

What is to be done? The ethics of the medical profession prevent us from advertising, while the whole secret of the success of the osteopaths, the Christian Scientists and the chiropractors lies in their advertising. For instance, take the case of the child with so-called "talking sickness" that has been in the newspapers so much. A chiropractor begged to see her. After this there was a whole page advertising the cure of this talking child. The A. M. A. had this same page from papers published in different States. These articles were the same except that at the bottom of the page there was a note giving the names of chiropractors in that particular locality. It was an ordinary case of encephalitis lethargica with an ordinary muttering delirium. After being treated by the chiropractor the temperature went on just the same. The talking had stopped at times before the treatment and after the treatment it went on in the same way, stopping at times. The chiropractic treatment made no difference at all. The child was recovering from an ordinary attack of encephalitis lethargica in the ordinary way, yet this page of advertisement by chiropractors claiming to cure encephalitis lethargica will go over the whole country.

I hope the time is coming when the public will be aroused to help itself. The more I think of the question the more do I become convinced that the job is not up to the doctor.

Dr. Hoag: If we are to educate the public and if we are to educate legislators, it is a question whether the medical profession does not need education along this particular line. It works out very much like the great problem of Americanization. We have been having the propaganda for Americanization, for the education of foreigners, but it really resolved itself into the question that many Americans needed Americanization. There are men who are chiropractors and osteopaths who have matriculated and are taking the regular course in medicine. I had some conversation with a chiropractor who was taking such a course, and I asked him how it happened. He replied, "I want to increase my standing in the community." I said, "When you get through what are you going to practice?" With a confidential wink he replied, "At least I will make as much money as I can." I think the education of the public is a splendid idea, but as to who shall do it and how much propaganda it will take and how many years it will take to put it on a high rational basis that is something we must consider. The moment the doctor departs from his practice and appears on the lecture platform he is spoken of with ridicule and skepticism and disbelief.

Dr. Wilcox: We must attack this subject from the historical and philosophical standpoints. The history of every movement that has come from outside the profession has followed exactly the same course. They receive their primary impetus from a denial that they practice medicine and they end by claiming that they should be legally incorporated into the body that is practicing medicine. The Christian Scientists began by denying everything material in the practice of medicine, yet within a month the Christian Scientists have been very much grieved that the Board of Education will not accept their certificate for teachers who are sick at home. How can they give a certificate stating that a person is sick when they claim that there is no such thing as sickness? Biologically, we shall have to look upon them as necessary evils. If medical science were the only attempt at healing and all practice were kept within the domain of the qualified practitioner, it would be necessary to have a war or something else to keep us from over-running the earth. Just so long as it is possible for any person, with or without education and with or without intelligence, to obtain a



license qualifying him to practice what they say is the healing art for a minimum amount of money and a minimum amount of time, we are going to have these people. If anyone thinks of entering upon the education of the public he would do well to read Toqueville's *Democracy* written in 1840. He says this country is destined to be the sort of field for every political, scientific and economic experiment ever dreamed of in the world, and the dear public are to be the victims. That is all there is to it. Biologically this movement is perfectly correct. Philosophically we know where it is tending. No education of the public will ever stay it.

Dr. Eden V. Delphey: The medical profession is the most altruistic of all the professions; it does the most of all the professions for mankind and gets the least in return. During the world-war, there were 140,000 physicians in this country and 35,000 of them were in the army and navy, while 25,000 more worked on the draft-boards—all at a sacrifice of their own personal interests. We must educate the public. The American Medical Association has asked that the various local societies have the facts relating to public health published in the daily newspapers as a means of educating the public in matters relating to public health. Educational propaganda designed for the public must have some "pep" and "ginger" behind it, for it will not otherwise carry itself and force itself upon the public notice. No one doctor can do it all, but the medical profession can do it by means of a publicity committee which will prepare and submit the facts to the newspapers.

If the legal profession had to meet the same opposition with which the medical profession has had to contend, it would have risen in its might and would have soon put an end of it. Yet we doctors submit to it and go along in the same old quiet way healing the wounds and administering to the ills of mankind, regardless of anything else.

Mr. Ehrhorn: The proposition looks a little different if looked at by any but a medical man. It is a question whether the ordinary layman is going to be treated by the standards laid down by others or those laid down by anyone but himself. Of course we recognize the fact that in the older days a man might go for treatment to a barber or to a ship's chandler for that matter. But the State has assumed the position that there is a certain relation which the individual bears to the State which gives the State the right to say who shall and who shall not do certain things that affect the State. Yet it is a question when it comes to his own well being, though we recognize that this is related intimately to the interest of the State, whether the individual will agree that the State shall tell him what he shall and what he shall not do. There are still many people who are so old-fashioned that they think they have a right to say who shall treat them. It used to be said that a man taking his own life was committing a crime and that he was inflicting injury on the State. Yet there were those who held that if a man, or yet a fair damsel, saw fit to take his or her life he or she had a right to do it and was not committing a crime. It has been found that in practice it is impossible to get any punishment imposed for suicide on the ground that it is a crime against the State.

If people are educated shall they not be allowed to choose for themselves? If they are not right mentally then they are taken care of. But it is a question whether or not the Government should be so paternal as to say you must select somebody whom we think is fitted to treat you. If the individual has intelligence, if he is a college graduate holding a high position of trust, shall the State say that such a man having all the facts and knowing just what medical men are able to do, you shall select certain men to treat you and you shall not select certain others? If this person of high intelligence says he wants a cabaret singer, one of the kind who has only studied six weeks and is able to push a button in the back of one's neck, if he is a man of intelligence are we going to say, "You cannot choose who shall treat you"? That is the problem.

If a person believes in having somebody a hundred miles away give him absent treatment and collect a fee, and he is a man of intelligence, are you going to have the State say he cannot do this? I suppose that if a vote were taken on this question it would be unanimous that an intelligent man should be allowed to exercise his judgment intelligently, but when the exercise of his intelligence involves the selection of someone to treat him, you say, "Nay, nay. Far be it from us that the State should allow you to have this bonesetter. Nay, nay, you are all right in everything else, and you may be an educated man, but we are going to say, whether you want it or not, who you are going to have to treat you." That is the argument used by many people.

I have in mind an acquaintance of mine, a well-known man, who tells you what Christian Science has done for him. He is like Dr. Hoag's patient, who after he had treated her ten or

twelve years went away and came back full of color and "pep" and strength and said the Christian Scientists had done it. I had a man visit me on Sunday at my country place, a practicing lawyer in New York, a well-known man who has been in public office, who believes that Christian Science is curing his child of asthma, and maybe he is. But the question is, shall the State prevent a man of intelligence from exercising his intelligence? In this body I say he should be permitted to exercise his intelligence.

Mr. Koel: I think the public appreciates the well-trained medical profession, but may we not go too far when we want to stop a whole lot of people who want to try some other form of treatment, so long as these people do not go too far and invade the field of the surgeon and that of contagious disease? I think a study should be made on the basis of why some people subscribe to these forms of treatment when they are otherwise of good judgment.

Mr. Whiteside, in closing: I was surprised that one of the speakers was so pessimistic in regard to educating the public, especially in view of the attitude of the Government and of society that in the last analysis appeal must be made to the public. The Government is only as good as the average of the public. If the public cannot be trusted it is time that the public be educated. If the public cannot be trusted then we are going back and advocating an autocracy. I am a firm believer in education as exemplified in our public schools and the form of education in the higher branches. I believe the public is capable of assimilating that type of education and understanding it and acting upon it.

One of the speakers has evidently misunderstood our purpose entirely. I have never contemplated that any free-born American citizen under any circumstances should accept the services of any school of medicine or cult, but I believe we should be free at all times to say what treatment we prefer so long as it is not a question of contagious disease. That freedom must be preserved, but the public should be given fundamental truth so that it will be in a position to make a selection. It has not been proposed to forbid, but it is only our purpose that those who propose to practice should be certified by the State as qualified, for at the very threshold of treatment of any case they must have sufficient scientific knowledge to enable them to make a diagnosis; without scientific training and understanding they are in no position to make a diagnosis. We have no quarrel with the chiropractors or other cults as to whether there is any virtue in their treatment; we only claim that a man who is going to engage in the healing art should come up to the standard set by the State, that he should not be the subject of any special privilege.

## A MODERN CLINIC.

ARTHUR PALMER, M.D.,  
New York.

One of the most notable philanthropies carried on by New York City and various private and semi-private organizations is the modern clinic or dispensary. Here thousands of people of all ages, nationalities and religions are treated daily for a great variety of diseases or complaints. Any person, whether rich or poor, by paying a fee as small as ten or twenty-five cents may seek relief at any one of these clinics from any sort of ailment, whether it be a tooth-ache or an inoperable cancer.

The benefit each patient receives depends upon many factors, especially upon the character of the ailment and the character of the patient. For example, if he is a grouchy or aggressive individual with chronic catarrhal deafness he may get little relief. Then, too, the relief depends upon the equipment at the command of the physician and the amount of time and patience he possesses, not to mention the degree of interest he may take in the case.

The great question which confronts those who operate the clinics is "How can we improve our results?" That this may be done no one but an ill-informed person will deny. While no doubt a large percentage of those who visit a clinic are helped, either physically or mentally, there is everywhere a

certain number who receive no help, or at least much less than they might receive. The majority of doctors who work in clinics recognize this fact, and indeed many of the patients themselves cannot but realize that little or no improvement in their condition is evident.

The most pressing need for a change in the present procedure concerns largely the chronic and the obscure cases. Under the present system the conditions are far from ideal and often both patient and doctor waste time in continuing the work.

By way of illustration let us take the ear clinic. The acute cases can be handled quickly and satisfactorily under the present system. If a diagnosis of O. M. P. A. is made the ear drum can quickly be opened and if there are furuncles in the canal these can be incised and the after treatment can be carried on. But when we must try to differentiate between nerve and conductive deafness in a busy clinic the job is not so easy. Again, if one is striving to increase the hearing in a case of chronic progressive deafness, he finds his time and tools inadequate. The same parallel may be drawn in other departments of out-patient clinics.

Some of these difficulties in the way of good results may be eliminated by establishing specialized clinics to care for the cases which require more time and pains than the acute type. In these clinics the doctors should be paid a reasonable salary and thus gain the opportunity to spend more time at the clinic and do the patient lasting good. The patient should be charged a higher fee for entrance and thus made to feel that his treatment is more on a business and less on a charity basis. There is little doubt that the majority of patients could afford fifty cents or a dollar entrance fees to such a clinic. Many clinic patients do not want charity. They find themselves forced to seek relief in a clinic because they cannot afford the fees of a specialist and know no reliable source of relief at the price they can afford, aside from the clinic. If a fee were charged, certain patients would doubtless prefer to pay a little more and get treatment in a doctor's office where as a matter of fact they should be treated. To be sure, a few exceptions to these classes exist in those who cannot afford any fee. Such patients could be admitted free of charge at the discretion of the admitting officer.

If the procedure outlined above were carried out, the results achieved would be much more satisfactory to both doctor and patient. The work would be more enjoyable to the former and greater self-respect would accrue to the latter.

Already some clinics have started to raise the entrance fee. This is a step in the right direction. The next is the establishment of specialized clinics for selected cases, where the equipment is adequate, and sufficient time may be given each case to obtain the maximum result.

2178 Broadway.

#### Lung Abscess.

C. A. Hedblom says acute cases of the mild type, according to most writers of experience, may be treated expectantly in the hope that drainage through the bronchus may effect a cure. These cases are such as most often follow pneumonia of a mild type, and even in these it should be understood that the presence of pus in the bronchial tree is a constant menace to other portions of the lung. In general the mortality in cases of abscess treated expectantly has been from 70 to 90 per cent.—(*Minnesota Medicine*.)

## GASTRO-INTESTINAL SARCOMA.—III

HYMAN I. GOLDSTEIN, M.D.,

ASSISTANT IN MEDICINE, GRADUATE SCHOOL OF MEDICINE,  
UNIVERSITY OF PENNSYLVANIA,

Camden, N. J.

(Concluded from page 235)

### Syphilis of the Stomach—

Alfred D. Kohn (*Amer. Jour. Med. Sci.*, 1909, Vol. 137), reported on syphilis of the stomach and the intestines. This disease of the stomach was first described and reported by Andralin, 1834. (*Clinique Medicale*, Paris, 1834, ii, 201).

Chiari found 2 cases in 243 autopsies. Stolper, Fraenkel and Aristoff have also made reports on syphilis of the stomach. Kohn reports two cases of syphilis tumors of the stomach; an old lady, age 60 years, and a man.

Hemmeter, Stokes, Morgan, Hayem, Hoover, Einhorn, Mackay and others have reported cases of syphilis of the stomach.

On Wednesday, evening, November 11, 1857, about a month after the Pathological Society of Philadelphia was first organized (10/14/1857), Dr. Gross, the first president, showed a specimen of "softening of the stomach" by the action of the gastric juice. A boy, aged two years and a half, from whom five months previously he extirpated the left eye on account of encephaloid, died on the 24th of October, from a relapse of that disease, in a state of great emaciation and anemia. Post-mortem 28 hours after death, showed the great cul-de-sac to be "softened" through the tunics from the action of its contents. The mucous membrane presented a gelatinous appearance and the muscular fibres in the parts immediately around looked preternaturally pale and were easily torn. O. Ward (1847), and R. Barnes (1848) and Ballard (1857), reported cases of solution of the coats of the stomach (post-mortem).

Dr. Da Costa, Nov. 10, 1858, before the Pathological Society of Philadelphia, presented a specimen of narrowing of the pylorus due to very "marked thickening of the submucous and muscular coats of the stomach." No cancer cells were found, the mucous coat was smooth and clean. He gives a brief review of the literature of the subject, and states that the condition was rarely mentioned.

Da Costa mentions Rokitansky, Habersohn, Bamberger, Hénnoch, Brandt, Dittrich and Cruveilhier as having pointed out this condition. Budd, Valleix, Grissolle and Chambers made no mention of it.

Dr. Darrach, January 26, 1859, before the Phila. Path. Society, presented a case of myeloid tumors of the abdomen involving the pancreas, transverse colon, liver and stomach (perforation) from a young man, George C., aged 23 years, who began to be jaundiced 6 months before. The spleen and kidneys were much congested but showed no metastatic growths. The tumors resembled the cases reported and described by Paget and Leber. Dr. Gross believed these tumors were probably of the class of encephaloid growths, and that the lesion of the stomach in this case was the same as that affecting the pancreas and liver. (*Transactions of the Path. Socy., Phila., Vol. I, 1857-1860.*)

Dr. Gross, Jan. 11, 1900, exhibited before the Path. Socy., of Phila., a case of universal melanosis, in Elisha C., aged 58 years, in which the stomach contained a number of small, hard, whitish-black nodules; one or two of them were partially ulcerated.



The pyloric and esophageal extremities of the organ were healthy. Both suprarenal capsules, the prostate, the pancreas, omentum and the liver were all involved. The gall bladder, upon its inner surface, showed a number of very small tubercles seated in the submucous cellular tissue, and of a black color. Even the heart, the lungs, and many of the lymphatic glands, were all affected with the melanotic tumors.

Livezey (1860), before the Phila. Path. Socy., reported a case of pyloric thickening; the stomach was very much enlarged, and the pyloric extremity extended below the umbilicus, and presented a distinct hour glass constriction. The pyloric valve was very much thickened and constricted. The liver and kidneys were healthy. The patient presented no stomach symptoms. Was this a sarcomatous mass at the lower end of the stomach? No pathological report is given. Patient was a woman, Ann G., aged 40, who died of phthisis.

Dr. Thomson's case, presented before the Phila. Path. Socy., May 13, 1869, occurred in a seaman, M. H., aged 40. Death occurred from perforation and peritonitis. Drs. Harrison, Allen and E. Rhoads reported the specimen as consisting of a series of nodular tumors blended together. The growth was situated between the submucous and subperitoneal layers. On cutting the nodules there exuded a considerable quantity of thick fluid containing oil, oil globules and "cancer" cells. The same elements were associated in large proportion with fibrous stroma in the diseased tissue. The pylorus itself was not thickened. The growth affected the lesser curvature close to the pylorus, involving the outer wall and upper and lower borders. He complained very little of gastric symptoms. Thomson states it is worthy of note that such extensive disease should have caused very little symptoms, which only became severe a few days previous to death. This case was probably one of primary gastric sarcoma.

S. W. Mitchell's case of "fibroid thickening" of the pyloric half of the stomach, seems to have been a case of gastric sarcoma. Patient, S. G., was a cabinet-maker, aged 65 years. Illness dated back two years. Chief complaints were nausea and intense pain after eating. Dr. Mitchell, then detected a tumor which lay across the belly at the level of the seventh rib. It moved with the diaphragm. Neither liver nor spleen was enlarged. It looked like a pancreatic tumor or gastric cancer, clinically. The pyloric end of the stomach was hard and round,  $5\frac{3}{4}$  inches long. There was one large ulcer at the beginning of the thickened part of the stomach. Pancreas was normal. W. W. Keen reported that the pyloric extremity of the stomach was 3 or 4 times as thick as normally. A section here gave a large amount of fibrous stroma, arranged in oval and circular meshes. In these meshes were masses of nuclei and cells. The latter were nearly all fragmentary. Their walls were generally indistinct, their forms mostly rounded, or if angular, it was apparently by reciprocal pressure. Some few were nucleolated. The nuclei were mostly oval, rather large, granular, and in some cases nucleolated. They were more numerous than the cells.

In W. E. Hughes' case of retroperitoneal sarcoma, in a miner, the duodenum, pancreas and kidneys and mesenteric glands were involved secondarily by metastatic growths. No mention is made as to the stomach.

In H. M. Fisher's (1891) case, the intestine and liver, as well as the kidneys and heart, were infiltrated, with metastatic sarcomata. Patient was child's nurse, K. R. aged 33, attended at the Philadelphia Episcopal Hospital. No mention is made of the stomach.

J. K. Rothrock (1889), reported a case of primary sarcoma of the liver in a salesman, W. S., aged 34 years. The liver weighed  $9\frac{3}{4}$  pounds. Surrounding the pancreas were at least eight masses. No ulceration in the stomach or intestines. On under surface of sternum there were three masses of growth.

A. Stengel and J. M. Anders (1889), reported a case of a very large omental sarcoma with involvement of the liver and bowel. No mention is made of the stomach. The patient was a white man, C. B., aged 35 years, a Swiss, and laborer by occupation. The spleen, lungs, kidneys and heart were not involved in the tumor process. From the intestines Stengel obtained the beef worm, or *tænia mediocanellata*. The growth was a rounded sarcoma.

Quain and Beardsley, (1857), reported a case of polypus ejected from the stomach, in young girl, W. C., aged 19 years. The tumor was the size of a chestnut, and was attached to the mucous coat of the stomach by a pedicle, before being vomited up. The patient had herpes zoster.

Fussell's case of retroperitoneal sarcoma, affected the small intestines, causing a rupture of the gut and fatal hemorrhage. The man was 40 years old.

Fussell (1893), states "retroperitoneal sarcomata are rare." But two specimens were shown in the 36 years since the beginning of the Pathological Society of Philadelphia. The sarcomatous disease of the intestines and in the neck were no doubt secondary to the retroperitoneal growth. These cases were reported by Osler and Tyson. Fussell's patient was operated on by Agnew, who had made the diagnosis of sarcoma.

Joseph V. Kelly reported a case of rhabdo-myoma of the omentum and intestines in a baby, E. S., aged 13 months, (1878).

Pollock and Quain (1853), reported a case of marked thickening of the stomach and omentum, which closely resembled malignant disease (sarcomatous?), in a woman, Mrs. G., aged 49. The stomach was greatly thickened, no ulceration of the mucous membrane was present. The pancreas was unusually large and dense in structure; the omentum loaded with fat.

J. C. Hare and L. G. Beale (1853), reported a case of marked hypertrophy (sarcomatous?) of the stomach in a woman, Mrs. D., 33 years of age. The diseased mass was found to consist solely of the stomach, the liver was slightly larger than normal, the spleen was normal. The stomach walls were exceedingly thickened, being  $\frac{3}{8}$  inch to  $1\frac{1}{2}$  inch thick.

Geo. H. Semken, on February 23, 1921, before the New York Surgical Society reported a case of fibrosarcoma of the appendix in a man.

L. Ruppert (*Wien. klin. Wchnschr.*, 1912, xxv, 1970-72), collected 12 cases of primary sarcoma of the stomach from the German literature and added his case of primary lymphosarcoma of the stomach.

F. Hogler in the *Wien. Med. Wchnschr.*, 1920, Lxx, 1701-1704, reports a case of primary lymphosarcoma of the stomach in a man aged 49 years.

M. Hoffman (*Zur Klinik der polypösen Sarkome des Oesophagus. Beitr. z. klin. chir., Tübing.*, 1920, Cxx, 201-214) writes on polypoid sarcoma of the esophagus.

Dr. A. C. Broders and A. E. Mahle of Clin. Syms., 6 months' average duration. Mayo Clinic; 6 were inoperable at operation; resection in 6; 4 died within 4 months and 2 not heard from. Primary lymphosarcoma of stomach. Report of 12 cases (*Journal of Laboratory and Clinical Med.*, Pp. 249-252, Feb., 1921, vi. Ho.s.).

J. Newman Morris, M. B., Ch. B. (Melb.) Surgeon, St. Vincent's Hospital, Melbourne. (Pp. 66-67. *Med. Jour. of Australia*, Jan. 22, 1921, I, No. 4. A large deep ulcer was found on urocaus surface of tumor. Primary round-celled sarcoma of stomach. Tumor occupied lesser curvature and pylorus.

Morris' case of primary gastric sarcoma was a well-nourished, stout, married woman, aged 33 years. She had attacks of indigestion and again for 6 months. Pain always in left upper region of abdomen. Well 22 months after partial gastrectomy. No metastases.

Lendon (*Med. Jour. of Australia*, June 18, 1921) reports a case of sarcoma of the stomach of low degree of malignancy, in a clergyman aged 37 years. The patient was alive and healthy eleven years after operation.

#### Sarcoma of the Duodenum.

H. W. von Salis (P. 180, *Deutsche Zeitschrift für Chirurgie*, Leipzig, Dec., 1920, 160, No. 3-4), reports a case of Sarcoma of the Duodenum. He comments on the difficulty of the diagnosis in the case of myosarcoma described in a man of 40. Its long course, seven years, seemed to exclude malignant disease, and the symptoms indicated pancreatitis, or a pancreatic cyst. He compares this case with 56 articles on the subject in the literature.

*Lipomata of the Jejunum-Ileum* are reported by A. Odelberg (P. 154, *Aeta Chirurgica Scandinavica*, Stockholm, December, 1920, 53, No. 2). Odelberg describes five cases of lipoma; stasis may be a casual factor. The clinical symptoms usually are obscure or wanting until the growth acquires a size sufficient to interfere with normal functions, when constipation, alternating with diarrhea, acute pain, vomiting, meteorism, all of short duration, but often repeated, occur. Then follows invagination, with chronic ileus, sometimes the very first clinical sign. Healing may occur spontaneously after evacuation of tumor; usually operation is indicated by the invagination symptoms. Tabulation of 37 cases follows, with a bibliography (in English). Sudden death is liable to occur, due to compression caused by the enormous development of the tumor.

Karshner, C. F., discussed "Syphilis of the Colon and the Lower Bowel," with report of 3 cases. (*Annals of Medicine*, Vol. I, No. 2, p. 237, July, 1920).

J. N. Morris, of the St. Vincent's Hospital, Melbourne (*Med. Jour. of Australia*, January 22, 1921, I, No. 4, pp. 66-67), reported a case of primary round-celled sarcoma of the stomach. The tumor occupied the lesser curvature and pylorus. A large deep ulcer was found on the mucosa surface of the tumor. The patient was a well nourished, stout, married woman, aged 33 years. She had attacks of indigestion and angina for six months. The pain always occurred in the left upper region of the abdomen. She was well 22 months after partial gastrectomy. There were no metastases.

Broders and Mahle (*Jour. of Lab. and Clin. Med.*, Feb., 1921; vi, No. 5, pp. 249-252), reported twelve cases of primary lymphosarcoma of the stomach from the Mayo Clinic. Six were inoperable at time of operation; resections were done in 6, 4, died within 4 months, and 2 were not heard from. The average duration of clinical symptoms was 6 months.

Lapeyre (*Rev. de Chirurgie*, Paris, 1920, xxxix, Nos. 5 and 6), gives the details of 32 cases of primary sarcoma of the rectum, including one in a boy 11 years old, and one in a boy aged 15 years.

#### Conclusions

1. Primary sarcoma of the gastro-intestinal tract, while a rare condition, should be considered in the study of tumors occurring in the abdomen.

2. Such tumors may reach considerable proportions before giving rise to metastases and serious clinical symptoms.

3. They may occur at any age, and are quite often met with in young adults.

4. Symptoms of gastro-intestinal sarcoma may be very slight and indefinite for a fairly long time.

5. Obstructive symptoms seldom occur until later in the course of the disease.

6. Early diagnosis and prompt surgical interference, yield favorable results in many cases. The prognosis being more favorable, than in carcinoma.

7. Gastric analysis may be normal and these may even be a hyperchlorhydria in gastric sarcoma.

8. In a study of the literature of the world about 600 cases of primary sarcoma of the gastro-intestinal tract, liver, pancreas and gall-bladder were found and collected by the writer. There were about 266 cases of primary gastric sarcoma, 65 of the tongue, 36 in the esophagus, 139 in the small and large intestines, 18 in the appendix, 16 in the gall bladder, 59 in the liver, and 19 in the pancreas.

#### Sarcoma of the Gastro-Intestinal Tract

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## SYMPATHETIC SEGMENTAL DISTURBANCES—II.

The Evidences of the Association, in Dissected Cadavers, of Visceral Disease with Vertebral Deformities of the Same Sympathetic Segments.

HENRY WINSOR, M.D.,  
Haverford, Pa.

The object of these necropsies was to determine whether any connection existed between minor curvatures of the spine, on the one hand, and diseased organs on the other; or whether the two were entirely independent of each other. The material came from the Laboratory of Operative Surgery on the Cadaver, in the University of Pennsylvania, which is in no way responsible for reductions drawn. In all fifty bodies were examined; the anterior thoracic and abdominal wall removed; the anterior surfaces of the bodies (centra) of the vertebrae were cleared so as to have them distinctly visible. The organs were examined. Notes were then taken in two columns. The first column contains descriptions of the organs which were found diseased; the second column contains descriptions of the curvatures found. When the diseased organs and the vertebrae in

curvature belonged to the same sympathetic segments, the notes on each were placed opposite each other, in the two columns. When the diseased organs were not of the same sympathetic segments as the vertebrae in curvature, the notes on each were placed at different levels, case for case. It could be then seen at a glance whether the diseases found were at the same sympathetic segmental levels as the vertebrae which were parts of curvatures, or whether the diseased organs belonged to different sympathetic segments than from the vertebrae which were out of line. Unfortunately, through lack of space, the complete anatomic descriptions have been omitted, and only the tables, which will shortly follow, retained. Forty-nine of the fifty cadavers showed undoubted minor curvatures. The one exception had a slight smooth lateral curve in the thoracic region (such a curve has been considered normal by many). The very minor visceral pathology of this body (No. 12 in the omitted report) was in the segments immediately above or below the reported curve, in other words, it belonged to the segments which should form compensatory curves had such been reported. All curves and deformities of the spine were rigid, apparently of long duration; irreducible by ordinary manual force: extension, counter-extension, rotation, even strong lateral movements failed to remove them or even cause them to change their relative positions. Except that the attachments of the vertebrae and intervertebral discs were still preserved, the curvatures did not differ substantially from those seen in skeletons. Minor curvatures differ from the grosser curves of the Orthopedic surgeon only in degree, and in that their association with disease of organs belonging to the same sympathetic segment is more frequent than with gross curvatures. Of four gross curvatures (two of Pott's disease and two with gross lateral curves), diseased organs were not found to belong to the same sympathetic segments as the gross curvatures, but were of the same sympathetic segments as the minor curvatures (compensatory curves above and below the greater curves.<sup>1</sup>

In the tables which follow of the fifty cadavers examined, consecutively: column one contains the names of the organs which were diseased; column two contains the vertebrae in numerical order which were in curve and belonged to the same sympathetic segment as the diseased organs in column one; column three contains those vertebrae in curvature which did not belong precisely to the same sympathetic segment as the diseased organs in column two, but to slightly different segments therefrom; column four shows the sympathetic supply for the organs in column one; column five is a kind of check system to find the relative frequency with which pathology is found in the organs belonging to the same sympathetic segment as the vertebrae in curve. Statistics such as these are reliable, provided that all exceptions are tabulated as well as the rules. If all data proving and disproving are given equal consideration, there can be no deception. As an example, body No. 1 of the omitted necropsy reports showed an apparent discrepancy in that the kidneys were diseased, when the upper dorsal region was curved, probably a compensatory curve of the lower dorsal or upper lumbar region escaped ob-

servation. Histologists state that the nerve filaments entering or leaving a cord segment pass up three segments and down two segments in the cord by their short processes. If this be accepted all instances of slight discrepancies (placed in column three) would do for placing in column two, and no discrepancies or exceptions need be filed. Abbreviations to save space in the tables which follow: Let C stand for cervical, D for dorsal or thoracic, L for lumbar, S for sacral,—regions, vertebrae, and ganglia of the sympathetic system.

Visceral disturbances	Vertebral Curvatures		Sympathetic connections between vertebrae and diseased organ	Check system
	of same sympathetic segment as visceral trouble	of neighbouring segment to discerna		
Thymus diseased 2	C 7 & D 1 D 2, 3, 4	1 1	None	0
Pleurae adherent 21	Upper dorsal	19	Lower dorsal	2
Lung diseases 26	Upper dorsal	26	Lower dorsal	0
Heart & pericardium, cases 20	Upper five dorsal	18	C 7 & D 1	2
Stomach diseases 9	(Dorsal 5-9)	8	1	Greater Splanchnic (Dorsal 5-9)
Liver diseases 13	(Dorsal 5-9)	12	1	Greater Splanchnic (Dorsal 5-9)
Cholelithiasis cases 5	(Dorsal 5-9)	5	0	Greater Splanchnic (Dorsal 5-9)
Pancreas cases 3	(Dorsal 5-9)	3	0	Greater Splanchnic (Dorsal 5-9)
Splenic affections 11	(Dorsal 5-9)	10	Dorsal (10, 11 & 12)	1
Inguinal diseases 2	(Dorsal 12)	2	0	Somatic nerve Ilio-inguinal
Kidney diseases 17	Dorsal 10, 11 & 12	14	Dorsal (5-9) 1 Lumbar 1 & 2 few	1
Prostate & Bladder dis. 8	Lumbar 1, 2, 3	7	Dorsal 12 Sacral curve	1
Uterus & Adnexa 2	Lumbar Lordosis	2	0	Lumbar & Sacral Ganglia
Visceral diseases 139	Vertebral curve of same symp. seg. as disease site	128	Vertebral curve of adjacent segment	101-5
				check
				138

Therefore, in fifty cadavers with disease in 139 organs, there was found curve of the vertebrae, belonging to the same sympathetic segments as the diseased organs 128 times, leaving an apparent discrepancy of ten, in which the vertebrae in curve belonged to an adjacent segment to that which should supply the diseased organs with sympathetic filaments. However, the nerve filaments entering the cord or leaving it travel or have traveled up or down the cord for a few segments, accounting for

<sup>1</sup> Both lateral curvatures of the spine and round shoulders, page 94 states: "Bachman in 197 autopsies in scoliotic patients of moderate and severe types has found in 88.8% tuberculous disease of lungs while in milder degrees of neoliosis there were 66% so affected."



all of the apparent discrepancies. The check amounts to 138, when the one body No. 12, which had a faint curve, with slight pathology only, is added we have the original 139, showing that the figures are fairly accurate.

The following diseases were found, taken in their order from neck to feet: Larynx, cancer 1, thymus, large and fatty 2, pleurae, adherent 24, effusion 2, lungs, pneumonia 15, tuberculosis 9, edema 7, passive congestion 5, fibrous lung 1, bronchitis 4, enlarged peribronchial lymph node 1, influenza 5, heart, endocarditis 3, dilatation 10, brown degeneration of heart muscle 1, pericarditis 2, aortic aneurysm 1, liver, hypertrophic cirrhosis 4, atrophic cirrhosis 3, fatty cirrhosis 3, cirrhosis 1, congested 1, cloudy swelling 1, gall-stones 5 times, stomach, dilated 4, ulcer 1, tumors 1, hemorrhage 1 or 2, spleen, large 7, atrophic 5, perisplenitis 1, pancreas, degenerated 1, kidneys, large red 8, small red 7, acute parenchymatous 2, cystic 1, cloudy swelling 1, appendicitis 1 or 2, combined with salpingitis, uterus displaced and adherent 1, prostatic hypertrophy 4, atrophy 3, urinary bladder, ribbed 4, cystitis 1, tumors 1, unduly large 1, small 1, groin, wound of excision of cancer or buboe 1, hydrocele 1, osteomyelitis tibia 1. In general, were found the ordinary diseases of adult life.

The original observations, omitted through lack of space, are now re-examined, as a check system on the tables, for discrepancies. Fifty cadavers exhibited a total of 105 curvatures, two of which showed Pott's disease, two gross scoliosis, leaving 100 minor pathological curves. Of these, 96 showed evidences of disorders (diseases) in some of the structures supplied by that portion of the sympathetic system coming from the vertebral segments in curvature. There were nine curvatures without any evidence of disease in the organs belonging to the same sympathetic segments as the vertebrae in curve. As four of these were gross curves (Pott's disease or gross scoliosis) five minor curves are left, without disease in the organs supplied by the same part of the sympathetic as the vertebrae in curve. Reversing the process of thought, 221 structures other than the spine were found diseased. Of these, 212 were observed to belong to the same sympathetic segment as the vertebrae in curvature. Nine diseased organs belonged to different sympathetic segments from the vertebrae out of line. These figures cannot be expected to exactly coincide with those in the tables, for an organ may receive sympathetic filaments from several spinal segments, and several organs may be supplied with sympathetic filaments from the same spinal segments.

In no instance was a complete sympathetic block observed. In other words, when and where vertebrae were found in curvature, never were all of the organs found to be diseased which belonged to the same sympathetic segments as the vertebrae out of line. We can compare this fact with the irritation of somatic nerves observed in spondylitis deformans or in Pott's disease. Partial pressure on cord or nerves producing partial paralysis only. The sympathetic system, being composed of nerve cells and fibres, like the cerebro-spinal and peripheral nerves, being merely a part of the rest of the nervous system (with perhaps more gray rami), we can expect that irritation near the origin of the sym-

thetic system will cause functional or organic changes in the organs supplied by the portion of the sympathetic system irritated in the same manner as irritation of a peripheral nerve (somatic nerve) near its origin will cause functional or gross pathological changes in the structures to which the irritated nerve is distributed. If Raynaud's disease, symmetrical gangrene, can be due to "vaso-motor spasm"<sup>2</sup> or to "anatomical changes involving the sympathetic synapses in the lateral horns of the cord,"<sup>3</sup> then sympathetic disturbances are just as likely to cause functional or organic disease in viscera, by altering the blood-supply of viscera, through vaso-motor spasm. Herpes zoster is another example of peripheral disease, caused by nervous disturbance near the exit of nerves from the intervertebral foramen.<sup>4</sup> Beri-Beri and aneoneurotic edema are other recognized vaso-motor disturbances. Radicular disturbances can be due to rheumatoid arthritis of the vertebrae pressing on the nerves of the brachial plexus.<sup>5</sup>

The origin of the sympathetic system is in much closer relation to the habitual site of spondylitis deformans, and much more likely to be pressed upon or irritated by the toxins emanating therefrom than is the brachial plexus.<sup>6</sup> In another series of 25 bodies especially studied by the writer as to minor curvatures, spondylitis deformans, irritation of the sympathetic system and disease in the organs supplied by the same sympathetic nerves as the vertebrae affected, it was found; 1, that nearly every one of the 25 bodies showed rheumatoid arthritis either of the heads of the ribs, of the intervertebral discs, or of the bodies of the vertebrae in curvature; 2, that rheumatoid arthritis was comparatively rare except in and around vertebrae in curve; 3, that it was not uncommon in the joints of the extremities; 4, that disease was nearly always found in the organs that were supplied by that part of the sympathetic system which had its origin at the site of curvatures where there was rheumatoid arthritis; 5, that it was rare to find an organ diseased which was not supplied by the same sympathetic nerves as the vertebrae in curvature with rheumatoid arthritis thereon; 6, that the inflammatory exudate of rheumatoid arthritis of the ribs, discs and vertebral bodies forming parts of abnormal minor curvatures pressed directly upon that part of the sympathetic system which supplied the viscera found to be diseased; 7, that instead of passing to the diseased organs in a straight line, the sympathetic nerves were stretched over this exudate which angulated the nerves; 8, that even where no bony exudate was found, there was intense rigidity of the segments, showing that fibrous or callous exudate could irritate the sympathetic. Rheumatoid arthritis is now believed to be of toxic or infectious origin.<sup>7</sup> We might assume a toxic

<sup>2</sup> Fussell's Edition of Tyson, page 1128.

<sup>3</sup> Jelliffe and White, Diseases of the Nervous System, page 162.

<sup>4</sup> Jelliffe and White, page 395, Baerensprung, Marburg and Spiller, mention the changes in the posterior ganglia in Herpes Zoster.

<sup>5</sup> Jelliffe and White, page 413. "Tuberculosis, syphilitic, carcinomatous, sarcomatous, arthritic infiltrations, about the vertebral canal impinging upon the cords of the plexus can give rise to palsies." "In the course of a rheumatoid arthritis one not infrequently encounters these radicular disturbances which undoubtedly referable to a vertebral arthritis." A picture of cervical rib, without mention of a minor curve of the spine, causing brachial palsy, on same page.

<sup>6</sup> Cabot, Physical Diagnosis, says, A favorite site of the disease (speaking of rheumatoid arthritis), is the lateral expansions of anterior common ligament (of the vertebral column), or words to that effect. This is the exact site of the sympathetic system.

<sup>7</sup> Fussell's Edition of Tysons Practice of Medicine. Edition 6, page 722, also Stenhal & Fox on Pathology.

or infectious perisymphaticitis to be present, on account of the close association between the sympathetic nerves and spondylitis deformans. In those grosser curvatures where bony or callous exudate has not been observed, fatty and fibrous change has been found in the muscles.<sup>8</sup> The blood-vessels and lymphatics supplying the cord may be pressed upon by these exudates, or by muscle spasm involved in statistics<sup>9</sup> (trying to correct the deformity and preserving equilibrium). The organs were in many instances affected by acute disease, while the deformed vertebrae proved that the curvatures preceded the organic diseases, though theoretically, reflexes through muscle spasm may reverse the order of precedence.

As all stages between minor curvatures of the spine and advanced spondylitis deformans with ankyloses of vertebrae have been repeatedly demonstrated on these twenty-five cadavers, they may be regarded as stages of the same process; the last stage being fixation of segments, immobilisation of painful joints being one of nature's later efforts to check the disease. Just so in other joints, the anatomical or mechanical reason for partial or complete ankyloses, is to rest the joint, in the same manner as callous tends to immobilise a fracture.<sup>10</sup> There are various other chemical, bacteriological and toxic causes, such as pyorrhoea alveolaris, cryptogenic infections, from narcotic teeth, chronic gonorrheal vesiculitis, faulty metabolism etc.<sup>11</sup> The disease going to the point of least resistance, in this instance to minor curvatures of the spine. That rheumatoid arthritis is secondary to minor curvatures rather than preceding them is the more likely, because minor curvatures are frequently in early life, rheumatoid arthritis in later life, also because spondylitis deformans was rarely found except on minor curvatures and because of the beginning rigidity of the segments from fibrous and collout formation.<sup>12</sup>

Rheumatoid arthritis was found several times on the anterior sacro-iliac ligament combined with evidences of the so-called sacro-iliac subluxation, such as apparent shortening of the limb, comparative elevation of the posterior superior spine of the ilium, and approximation of the latter to the middle line, combined with lateral curve in the lumbar region, lumbar curve and sacro-iliac subluxation (rotation of the innominate) appear to be interdependant. The conversion of the anterior sacro-iliac ligament into bone is but another example of nature's method of immobilisation of diseased joints, the inflammatory process going to the point of least resistance, exostoses occurring where muscles and ligaments have undergone excessive strain, thus pulling the bone into excessive tuberosities.<sup>13</sup> The stages in the process appear to be; 1, minor curves, or so-called sacro-iliac subluxations; 2, the muscles are converted into ligaments, ligaments into bone. Finally true bony ankyloses occurs. The disease appears to precede old age and to cause it. The spine becomes stiff

first and old age follows. Therefore, we may say a man is as old as his spine, the arteries becoming hardened later from constant vaso-motor spasm, following sympathetic irritation.

Another example of direct pressure upon, or infection of, the sympathetic system is found in pleural adhesions. Pleural adhesions were observed twenty-six times in forty-two bodies associated with minor curves in the upper dorsal region in all but two instances; the lungs were diseased in nineteen of the twenty-six; the heart in six. On the other hand, there were seven instances of the lung and fourteen instances of heart disease in which the pleurae were not mentioned. Pleurisy is common clinically without, as well as with, disease of the lung. Pneumonia without pleurisy was demonstrated a few times in the fifty bodies. The pain over pneumonia, as in other organs, is now believed to be in the coverings, or even in the chest wall or abdominal wall, the organs themselves being comparatively insensitive. When the lungs were pulled out of the cadavers, the adhesions were sufficiently strong to pull the intercostal vessels and nerves from their grooves under the ribs; the sympathetic can also be pulled upon in this manner. Pleurisy may be caused by infection, the earliest stage being hyperemia.<sup>14</sup> The irritation of the sympathetic is probably as much caused by infection as by direct pressure; the reflex spasm of the vaso-motors deranging the blood-supply of the organs supplied by the sympathetic segment in curve.

A simpler illustration, one more readily grasped, and easier to prove clinically, is the somatic disturbances associated with vertebral involvement. Of three cadavers with inguinal disturbances (bilateral hernia, hydrocele, idiopathic bubo or cancer, which had been exercised in an old woman), all showed rotation of the twelfth dorsal vertebra; the connecting links being the ilio-inguinal and genito-cruar nerves. Skin diseases:—two cadavers with warts exhibited minor curvatures in the region from which the affected skin derived its nerve supply.<sup>15</sup>

Two dissections were made of the sympathetic origins, with vertebral column attached, tracing the sympathetic system from the minor curvatures to the blood-supply of the organs diseased. One showed minor curvature in the upper dorsal region, in the neighborhood of the inferior cervical ganglia of the sympathetic, sclerosis of the carotid vessels, and softening of the frontal lobe of one side with atrophy of the brain, in an old woman.<sup>16</sup> The other organism of the rota (duccuding) and compensatory curve of the spine in that ?? . The vertebral columns of these two dissections were mobilised (made movable), with the following observations:

Extension of the vertebral column stretched the sympathetic system.

Flexion of the vertebral columns relaxed the sympathetic system.

Side-bending rotation of the vertebral column produced stretching.

(tenseness) of the sympathetic on the convex side of the curve, and relaxation of the sympathetic system on the concave side of the curve, of the vertebral column. By placing the thumb as the ful-

<sup>8</sup> Lateral Curvature of the Spine and Round Shoulders. Lovett, Robert W., M.D. Edition 2, page 89.

<sup>9</sup> Dr. J. Madison Taylor on "Statics" in numerous pamphlets.

<sup>10</sup> Hilton, "Rest and Pain," and others.

<sup>11</sup> Pemberton, Ralph, M.D., "Studies on Arthritis, in the Army." "The Nature of Arthritis and Rheumatoid Conditions," and others.

<sup>12</sup> Lateral Curvature of the Spine and Round Shoulders, Lovett, p. 126.

<sup>13</sup> Lovett, Lateral Curvature of the Spine and Round Shoulders, page 88. Max Cryer, M.D., D.S. The function of the ?

<sup>14</sup> Fusell's edition of Tyson's Practice of Medicine, page 635. See also Ashburt, Surgery Principles and Practice, page 20, on ? in origin.

<sup>15</sup> Duhring, said 1900, that all skin disease was nervous or infectious in origin.

<sup>16</sup> Sajous, "The Ductless Glands and the Principles of Medicine" recognizes vaso-motors of Cerebral Vessels from Inf. Cerv. Sympath. Ganglia.



crum of a lever behind the vertebral column, and pressing thereon, the movement of the vertebral column and the movement of the sympathetic system can be limited almost exactly to the desired spot. Thus can the sympathetic system be exercised, stimulated by traction, inhibited by flexion.

Twenty-two stray cats were anesthetised, some with gas, some by chloroform, some with ether; the abdomen was opened; the vertebral column hyperextended and direct pressure made from behind with the thumbs against the ninth dorsal vertebra. Result: the abdominal aorta ceased to pulsate. The abdominal aorta was now severed. Result: no blood extruded. The vertebral column was now flexed. Result: the aorta spurted blood in jets. Flexion and extension were tried repeatedly with the same results. The abdominal aorta was now clamped; the thorax opened; hyperextension of the vertebral column with direct pressure of the thumbs from behind the second, third and fourth thoracic vertebrae was made. Result: the total excursion (limits of expansion and contraction) of the auricles of the heart was diminished, the auricles weakened and slowed, the effect on the ventricles was less marked. Flexion and removal of pressure from behind permitted the heart to recover, both tried repeatedly with similar result.

Note—The cat has more ribs than man, therefore more thoracic vertebrae. Otherwise the thoracic sympathetic system does not differ greatly from that of man. The head segments are supposed to receive fewer filaments from the inferior cervical ganglia than in man. All cats died painlessly under the anesthetic.

The aorta was not compressed, neither was the heart. In some cats hyperextension of the cervical region, with direct pressure of the thumbs from behind the cervical vertebrae slowed and diminished the excursions of the heart. The vagal and sympathetic cardiac nerves were severed in others, which permitted the failing heart to increase the dimensions and rapidity of its excursions. In still other cats the phrenic nerves were compressed, through the skin, against the fourth cervical vertebra; this weakened and slowed the conclusive action of the diaphragm. Release of pressure all owed the diaphragm to recover the convulsive action it acquired after the thorax and pleurae had been opened, and before the phrenic had been compressed. The phrenic nerves were now laid bare, by dissection, and directly compressed against the fourth cervical vertebra, with a similar result. Pressure on the phrenic nerves relieves singultus (hiccough) clinically. The experiments on the aorta and heart action were believed to indicate that temporary experimental curves of the spine when combined with pressure from behind the vertebrae at a suitable level, influenced the blood-supply of the viscera by irritating the vaso-motors, through the sympathetic chain, thus causing the blood-vessels to contract. Treatment applied to the human spine clinically would probably have a similar result; so would physical exercises.

Children and dogs wishing to sleep, curl themselves up on their sides, thus bending the vertebral column, relaxing the sympathetic system, filling the great vessels, emptying the cerebral vessels; cerebral anemia is known to cause instant sleep. On awakening, they reverse the process; to stretch the spine and with it the sympathetic system, induces contraction in the great vessels, fills the cerebral

vessels; they then arise and move around again. "All cats" and many persons "like to have the back stroked," providing it is done the proper way.\*

While practically all the observations in this manuscript are the results of the writers personal observations, on skeletons, cadavers etc., he makes no claims for priority, similar observations having been made by others in the Bibliography which follows. Insufficient notice was taken of rheumatoid arthritis in the first 50 bodies. It occurred in nearly all of the last 27. Rib approximations received but little attention as they were nearly always secondary to or associated with minor curvatures of the spine of the vertebrae to which the ribs were attached. No doubt more could be made of the sympathico-vagal communications than appears in this manuscript, unfortunately, the anatomy of the connections between the sympathetic and the vagus is too little understood to be available in this study. They could explain much, no doubt.

Numerous photographs were submitted illustrating, the similarity of "Vertebral Displacements", "Subluxations?", "Lesions?" and Minor Curvatures of the Vertebral Column, including deformed vertebrae, composing such minor deformations of the vertebral column, but were omitted because they mostly belonged to other writers.

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- Physiologies:—Reichert, lecture 1898, Howell, Chapman, Brubaker, Foster, Waller, Mills; in a general way follow the anatomies and state that the sympathetic controls the blood-supply of organs; through the vaso-motors and blood-vessels.
- Lovett, Lateral Curvatures of the Spine and Round Shoulders.
- Lovett, Orthopedics and Spinal Curvature. The writer has read these books carefully and followed them in detail in his studies of minor curvatures of the spine; which differ from gross curvatures only in degree and in a closer association with visceral disease than is evident in gross curvatures.
- Abrams Spondylotherapy was of great assistance, e.g. on page 377 and on page 14 of Progressive Spondylotherapy will be found charts closely corresponding to the tables in this manuscript.
- Charts by Captain Charles F. Ireland, Columbus, Ohio, for electrical treatment applied to the spine for influencing the condition of organs by way of the sympathetic system are almost identical with the tables here presented. Allowance must be made, however for the fact that these two authors worked from the spinous processes of the vertebrae, while the author the present writer worked from the fronts of the bodies of the vertebrae.
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#### THE RESOURCES OF "SYSTEMATIZED REST, ISOLATION AND FORCED FEEDING."

Including Retraining of Functionation, of Personality, of Energy Reserves and, in Particular of Volition Through Control of the Neuro-Muscular Mechanisms.

J. MADISON TAYLOR, A.B., M.D.,

PROFESSOR OF PHYSICAL THERAPEUTICS AND DIETETICS,  
MEDICAL DEPARTMENT, TEMPLE UNIVERSITY,  
Philadelphia.

This incomparable grouping of therapeutic essentials serves well as a prototype of procedure in the enterprise of radical re-establishment not only for yesterday, today, but for the remote tomorrow. In order that the seeds of reparation shall fructify the ground must be adequately prepared.

My privilege and duty is to teach students the resources of restorative measures and instrumentalities other than by drugs or medicaments.

Experience shows that I can best seize and hold attention and interest by citing, as a comprehensive group of the best, most typical repair resources, the systematic procedures of the Rest Treatment as devised and used by S. Weir Mitchell, suggesting such

modifications and elaborations as accord with present day advances and needs, or are capable of meeting individual requirements.

This congeries of rational and scientific agencies furnishes today, as it always will, the majority of essentials, resources for repair, for the disentanglement of confusions, for realignments of depressed or distorted energies, of reflex circuits, of vegetative neuropathology, bewilderments of personality, and for restoring harmonious integration.

Systematized rest measures, while especially adapted to acute conditions, are of equal efficacy for energy renewal in many instances of protracted or chronic conditions, in particular certain complicated or rebellious, or unyielding states, where pre-existing disorders or complex backgrounds form special indications.

Likewise they are adapted to those individuals where a promise exists of an ascending scale of rehabilitation and of ultimate completeness or finish, through the use of orderliness, graduated procedures, induced mental receptivity, and discipline or training in conscious purposive control.\*

Above all does the deliberation and system or the procedures, the freedom from distractions, encourage an unfolding of latent endowments, of obscure complications, of uneconomic habits of behavior, and aids in diagnosis of collateral factors.

This field of phenomena and their explanation is now becoming opened up by recent researches in the neuro and psychopathology of the vegetative nervous system. This again depends on the larger resources of the ductless glands, on fluctuations in the energizing of the great regulators of metabolism and life in general, in short "endocrine imbalance".

These facts were non-knowable to Dr. Mitchell, but he was fully aware of their clinical foreshadowings. His primary training was that of a teacher of physiology, which made him alert to much he could not define but guided determination and action.

Absolute rest with its isolation, monotony, its unhurriedness, orderliness, regularity, tends to release from all over-tension, suspense; anxieties which thus fade into the background and tend to disappear. Depressed energies, reflex circuits, slowly but steadily thus come back to poise. A state of release is created to over-tension, psychogenic and muscular. Rest treatment thus supplies peculiarly favorable opportunities for mental distraction, for hypnoidal states (of Boris Sidis), forming a cleavage between the conscious and the coconscious, what Mitchell called the pre and post-dormital states—in which Sidis tells the precise time occurs to interject or introduce constructive suggestions.

We assistants were specifically instructed as to how and when to utilize these receptive states, and in particular, how not to abuse them. To keep our hands off when delicate or suspicious or strange conditions or revelations were about to emerge.

The finer, more subtle, and the guiding work was reserved for the master. We could, and often did,

contribute to the results, but always within our jurisdiction.

Many parts of the voluminous writings of the psychoanalysts seem now to us mere echoes of familiar things. Indeed, among them is a conspicuous absence of much which was shown to us as being of inestimable importance. For example, the relationship of the elements of depressed body chemistry, now included under basal metabolism, as a factor in psychopathies.

Certain painful states must be reckoned with, as frank pain or vague distress, where consciousness of suffering has sunk below the threshold from long continuance and hence arises anaesthesia to pain or fatigue—the other elements of distress over-bearing the sense of exhaustion. We seldom overlook these things. That wise veteran of medicine, Dr. William H. Porter, recently called attention to the element of pain, hence loss of rest or sleep in certain cases of severe chronic eczema, in which the pain, itching and depressed metabolic balance were all relieved and cured by absolute rest. ("Absolute Rest as a Metabolic Stimulant," Medical Record, by William H. Porter.)

In short, rest treatment may be conceived of as the artistic as well as the scientific and common sense adaption of rest, supplemented by suitable accessory procedures in accord with the needs of the individual.

Rest has been recognized since time immemorial as paramount to the treatment of acute, to many protracted and otherwise complicated disorders and diseases. Mere inaction, however, is by no means adequate; hence Hilton, Wier Mitchell, Playfair, and later the experts in disorders of metabolism, the phthisiographers, and now the surgeons have come to use rest and the accessories of rest, and have defined the instrumentalities whereby to bring about a maximum of efficiency for rest as a radical agency in cellular restitution and psychopathic re-establishment. In acute disease and injury absolute rest is essential, not only as the chief agency to retard the ebbing tide of defense energies during infection or threatened infection after shock or trauma, but also in order to fortify the reparative potentialities.

In protracted or chronic or convalescent states, rest, absolute, modified or partial, is equally efficacious in placing the sufferer in positions of advantage for rehabilitation.

While it is a simple matter to place an individual in bed, or to immobilize a part, it is forcefully borne in upon men of experience that, in delayed repair or unfortunate eventualities, there is required quite as much judgment, special skill and training to employ rest advantageously as is needed to successfully employ any other therapeutic regime. In the golden age of conservation these accessory, supplemental and training agencies will take so high a place in confidence and esteem as to reduce the need for medicaments to their minimum.

Treatment by rest, isolation, forced feeding, developmental and reconstructive procedures, as initiated by Wier Mitchell, has proved an epoch-making advance in systematic rehabilitation. The system, viewed as a group of consistent and logical adaptations of forces, is peculiarly applicable to the repair of energy depletion when brought about by wide range of casual agencies, psychogenic and somatogenic, inherited or acquired.

(Continued on page 275)

\*The late Wier Mitchell—whose Chief of Clinic I was for years—devised and employed with conspicuous success "a method of robbing rest of its evils", etc., which in his hands even then brought about results on a full parity with the foremost clinicians of today, as I can testify from experience then and now. His critics, few of whom could have been in possession of many essential facts, (as were those of us who worked with him,) often depreciate his methods, especially as failing to include much that is "modern". This is an error. His methods, which must continue to be employed, and his inclusive objectives, deserve restating in the best interests of present and future clinical efficiency, that at least which strives to include the massive power and comprehensiveness of the incomparable and elastic system which he achieved.)



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H. SHERIDAN BAKETEL, A.M., M.D., F.A.C.P.

ARTHUR C. JACOBSON, M.D.

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## A Clinic for the Sick World.

Dr. J. Madison Taylor, in his article in our October issue on "Internationality of Mind," revealed how essential to a proper understanding of world problems in their relation to the public health is an equipment of psychologic, economic, anthropologic and political knowledge.

The last point—one which has been perhaps less patent than the others—was made in the article when Dr. Taylor wrote that "The health of a nation—of any or all nations—depends upon the capabilities of the units of that nation, of each voting citizen, in order to administer its affairs in the best interests of the majority." If the public health, mental, physical and moral, be one of those interests, we should like to know how the modern physician can evade his obligation to study politics, whether he be a typical bourgeois practitioner or a radical having no use for the State as we know it, believing that "Political governments never serve the interests of peoples, but on the contrary, invariably retard and oppose them" (The Freeman, September 28, 1921), and anxious to make the most of the sinister revelations recently made regarding the prevalence of feeble-mindedness among all classes of our citizenship, as shown by the army intelligence tests of college students, teachers, bankers and lawyers (average mental age thirteen years).

We also should like to know how any adequate approach is to be made to present-day problems with which the public health is bound up unless that approach be along the broadest possible lines—lines including, as said, psychology, economics and an-

thropology. This broad approach must be made unless we are to sink back to the relatively circumscribed angles of vision possessed by our professional predecessors, in whom an interest in politics was not conceived of as anything but an amiable (?) croquet and in any case an end in itself.

The "collateral sciences" now go far beyond chemistry and physics and biology, and they must be utilized to give one an idea of the actualities and verities that bear upon human ills. We must know the sources of trouble as well as peripheral surfaces. And then the medical profession has a function which is to warn, to explain, to guide the feet of the cheerful idiots who would settle world problems offhand in accord with their guesses, or wishes, or unsupported interpretations of things as they have become or seem to have become. We must even take a direct hand ourselves at solving unrest, which certainly demands, in the first instance, a showing up of the actual mental and emotional status of man today.

Furthermore, there is the question of impairments of judgment due to physical inadequacies and constitutional inferiorities (hereditary and environmental). The manifold errors of child up-bringing whereby the psyche fails to reach a normal state find a place for consideration in this programme.

The crucial need confronting man, Dr. Taylor insists, is capacity for government along universal lines of enlightened self-interest. Then a stabilized and internationalized democracy would evolve which among other desiderata would bring us health. If this be the need, will it ever be realized?

Dr. Taylor's diagnosis of the world's sickness is sound. What is the prognosis? Is our empirical and vicious social therapy ever to give place to scientific procedure? Would this "scientific procedure" consist in abolishing, so far as possible, political government, which has always been rotten and the cause of a vast amount of human suffering with which as physicians we have had to deal, rather than in a continuance of what has been a ghastly farce to date? "Every actual State is corrupt," said Emerson.

Neither the communism of the savage nor the individualism of civilization have succeeded thus far in adjusting man properly to the planet upon which he began his existence. We are now all divided into the class that makes and the class that takes. We regard most of our evils as Aristotle regarded slavery—as "something essential to the very construction of society." The greatest hope lies with our artists: "If people are rotting and starving in all directions," says Bernard Shaw, "and nobody else has the heart or brains to make a disturbance about it, the great writers must." It is through art, if through anything, that man will be lifted out of the messy cloaca in which he now wallows.

Mr. J. A. Hobson, in "Problems of a New World" (Macmillan), expresses the belief that a new world is an actual possibility, even though he admits it depends upon fundamental changes in the character of most of the world's inhabitants. In such a world the worker would be liberated from the burden of industrialism and enabled to become a parent, an artist, a scholar, and a human being. Certainly no one can quarrel with the theory that our workers should by some hook or crook be at least permitted to be human beings.

Meanwhile the New York Times (August 29, 1921) cheerfully insists that "The people as a whole and

in the long run believe in peace, believe in justice, 'want to do what's right' to an extent incomprehensible to the cynical politician. They are inveterate idealists, essentially right-minded, and at last on the way to become 'internationally minded,' which deliverance ought to warm the cockles of Dr. Taylor's heart, for such internationality of mind is what he would conceive as a sign of man's redemption, the evidence of good things yet to be surely seen.

#### A Real Genius.

Jean Borlin has recently produced in Paris a drama in which the scenes are set in a madhouse, the dramatis personæ consisting of crazy people.

Borlin says that his play symbolizes the modern civilized world. "The modern world is really a madhouse. We are all more or less mad, though we may be unconscious of it. Our self-consciousness makes us mad, for we all imagine ourselves to be something which we are not. The ugly people imagine themselves beautiful, the clowns of the world hide their mental deficiencies by aping cleverness, and women who ought to be respectable matrons are mad with coquetry and desire for luxury. Thus the madhouse is the best type of our abnormal civilized society."

Surely a visitor from Mars would say that we were crazy, after seeing the amount of tuberculosis that we tolerate and adjust to, not to speak of war, our educational system, and a few other horrors that add unnecessarily to our miseries.

Bernard Shaw has remarked, sardonically, that the other planets use the earth as an asylum for their lunatics.

The French dramatist's point of view seems almost an inspired one.

"What fools these mortals be."

#### Public School Exploitation.

Some of the children who will not conform to the school curriculum are simply children who will not conform to the bad hygiene of the school. They instinctively try to escape from it, or else manifest reactions that are misconstrued. There is such a thing as being atavistic in a good sense. Probably it is the more primitive stocks which throw back in this manner. The sophisticated stocks seem not only to adjust to, but to like, the school milieu. We don't fancy there is much trouble on this score with the genuine New England breed. We put down many of the recalcitrants as truants, defectives, etc. "Nervousness," viciousness, etc., may be largely secondary phenomena. The ancestors of these children lived and worked in the open, were hunters and warriors and players of rough games. Today we are asking the representatives of such stocks to adjust to school conditions that are admittedly disgraceful in a vast number of instances, with respect to hygiene. School dulness may not infrequently be a sign of "normalcy." Certainly it sometimes seems that normal youth ought to revolt against the educational system and the hygiene that goes with it. Which is also true of the industrial system that it is nowadays devised to feed.

#### Pity the Middle Class.

Our economically artificial middle class, consisting largely of peasants who have exchanged the ag-

ricultural and other physically laborious pursuits of their ancestors for the counting-house, the schools, and the professions, suffer much for their social translation. Many of the metabolic diseases are referable to this translation, and its effects have not only to do with physical disabilities, but with spiritual and intellectual shortcomings.

Our abnormal urban life, in the course of which we prey upon each other instead of wresting our livelihoods from the soil, produces metabolic havoc and confused and purposeless existences. The parasitic women of this class, particularly, are pathologic monstrosities from any point of view. One longs for a dispensation that would return them to healthful toil, to vigorous physique, to freedom from distracting cults, and to the simplicity of their forebears. But the Christian Science temples, the political clubs, and the New Thought auditoriums claim them today. Meanwhile the land question remains unsolved, the cities teem with human debris, and disease exacts its appropriate toll from these devotees of unknown gods.

Humorists sometimes speak of these familiar phenomena as democratic evolution.

We need some sort of social mechanism to effect readjustments of these people that would be desirable from a medical point of view. It would be a joy to see Mr. Brown, the metabolically ill banker, return to the mast that his hardy sailor progenitors served, after a comprehensive sociological diagnosis. And it would be a greater joy to see Mrs. Black, the prospective victim of pernicious anemia, returned on her own solicitation to the bee-raising that her Yorkshire forebears carried on for so many generations.

Finally, there would be the question of climatic restoration. A very large number of the descendants of immigrants of certain types and age-long habitats in Europe and elsewhere might be induced to return to the land of their fathers, on the ground of disturbance of their health due to failure to adjust to our American atmosphere.

## Miscellany

CONDUCTED BY ARTHUR C. JACOBSON, M. D.

#### Moby Dick, or the White Whale.

If you want to read a good story get Herman Melville's *Moby Dick*, just reprinted by the E. P. Dutton firm. For the doctor who has exhausted Galsworthy and Bennett and Doyle and all the rest of the moderns, and who is waiting to be told of something out of the ordinary that he can read the next time he sits down, puts his feet on the fender, and lights his pipe, prepared for literary entertainment, we can think of nothing better than *Moby Dick*. It is a revived classic which for too long has been shoved aside in favor of lesser and later creations.

*Moby Dick* has been said by competent English critics to be as great as Shakespeare, and they have expressed wonder that so many Americans are unacquainted with it.

Herman Melville was born in New York in 1819. At the age of eighteen he shipped as a common sailor on a voyage to Liverpool; in 1841 he went again before the mast on a whaling voyage to the Pacific; in 1851 he published *Moby Dick*, which is obviously



autobiographical, dealing with his whaling adventures and his experiences with all sorts of quaint people in a style which is highly fascinating and amusing, albeit stark tragedy also enters into the tale. We won't go into details, but will guarantee a treat to the sophisticated doctor who has been fed up and surfeited upon the effete literary pabulum of the day.

This book has been published as one of Dutton's Everyman's Library series.

#### The Judgment of Scripture and the Iliad.

"Honour a physician according to thy need of him, with the honours due unto him;

"For verily the Lord hath created him.

"There is a time when in their very hands is the issue for good."

\* \* \*

"A physician is worth many men."

(Continued from page 272)

The rest treatment is capable of endless modifications and adaptations without impairing its integrity, provided certain needful conditions are consistently fulfilled. A personal experience of many years as assistant, and later chief of clinic, to Wier Mitchell enables me to speak with confidence and knowledge of his methods and results. Doubtless his extraordinary personality, charm, penetration, judgment, and clinical skill contributed materially to his brilliant successes. He devised and used this combination of quiescence with reconstructive as well as re-educative agencies which proved to be the point of departure toward recovery of a multitude of heretofore incurable or baffling disorders.

The potency of the program is to be evaluated not so much upon the reasonableness of mere rest, isolation, forced feeding and re-education, as in supplying collateral requirements differing with each case. These needs are ever the same in principle, but vary with circumstances under which the process is begun, and especially with the amount of authority permitted the physician for the exercise of control over the patient. Above all, final success cannot be expected unless caution is exercised in slowly but judiciously resuming customary activities and responsibilities. This re-education of volition and motivity is the crux whereby stabilization of the organism as a whole is achieved.

Physicians often commend this system of rest treatment, while urging objections erroneous or fanciful; or they cite instances where it failed to accomplish, or where actual harm was charged. This opposition is due either to insufficient knowledge of the true purposes and procedures, or to a lack of perspective or omission of persistence in enforcing them.

Where a suitable case presents, and it is decided to employ rest measures, strong objections are usually urged by the patient against such orderly, time-consuming and radical instrumentalities. In consequence the temptation is to so modify essential steps, in the endeavor to gratify patient and family, that the measure fails to meet definite needs which are clear enough to the physician, but not so to the ailing person. Where complex disabilities have induced that mental confusion and misinterpretation of symptoms which inevitably follow hope long deferred, also protracted suffering and disturbance of

customary habits or industries, the one quality demanded of the physician is decision. He must determine what is best and unfalteringly pursue plans to a successful issue. He should decide and execute unhindered so soon as mutual understandings and agreements are achieved.

There should be no greater difficulty in pursuing a course of rest treatment than of any other logical or rational measure. It will accomplish vastly more complete and permanent results in most instances than a course or cure at a foreign spa, or haphazard changes of climate, of scene, or by travels, and is more creditable to the skill of the physician.

#### II.

The purpose of this paper is to outline the chief features of rest treatment from the standpoint of one long familiar with its course, details, and possibilities, and thus to encourage the general practitioner to proceed with confidence, in making more available this system of thorough rehabilitation.

Systematic therapeutics aim to achieve all that is possible in the instance. It is rare, however, that physicians are permitted to do their uttermost. If all patients, or those who are in authority over them, possessed good judgment, fewer failures would be charged to physicians and less disappointments fall upon the sufferers. On the ground of economy alone it is much better to permit free action and full control of the medical counsellor. Otherwise he is hindered in carrying his remedial procedures to legitimate fruition.

Accuracy of diagnosis is requisite in dealing with any derangement, but it is pre-eminently necessary that the physician shall have adequate time and opportunity in solving complex problems of so-called "nervous disease" or psychoneurosis. In by far the largest proportion of those who have suffered from protracted ailments or illnesses there has arisen a bewildered mental state compounded of real and unreal phenomena. The solution then can only be reached by a nice degree of awareness in which psychology is on a par with the utmost scientific resources of so-called medicine. Nowhere are deliberate, exact and consistent therapeutics more needed than in the treatment of protracted ailments. The patient is too often impatient, demands a prompt, but fails to appreciate a permanent cure.

When the mind is fairly clear and intelligence good, the physician can often proceed by leaps and bounds if he can secure frank, cordial co-operation. Wise advice in the early dealings with psychopathies is capable of eliminating half, or a third of the distress in a single, or a few, conferences, provided he is met with receptivity in the patient and a sincere desire to co-operate. Since these ideal conditions are all too rare, the best we can ordinarily do is to set about securing a thorough mutual understanding and a compact to pursue to the uttermost recommendations as they shall evolve. The first desideratum, too often overlooked, is to indicate a plan of life calculated to place the body in a condition of increased receptivity to agencies designed to enhance and conserve the auto-protective forces. This is the *sine qua non* of therapeutic economy. The second need is to make an inventory of the character and fund of these forces which have come to be transmitted unequally, and to set about achieving an equilibrium, economy in expenditure, in short a permanent poise.

This principle of protected repose is recognized as paramount in dealing with any disease accompanied

by the conservative, yet often destructive, action of fever. Absolute rest is demanded not only here, but in the surgical domain in order to encourage repair by eliminating all sources of over-balancing of energies as in fatigue and stress, not only of body, but also of mind and emotions. Rest is paramount in guarding against surgical infection. By securing passivity of mind as well as of body, can we best initiate and secure self-control. By inducing tranquility one can metamorphose a dynamic captain of industry who is wearing his mechanism to shreds, into a sane co-operator in the enterprise of rehabilitation.

Mixed conditions are commonly met of physical and mental exhaustion so severe as to thwart normal responses to remedial agencies. The problem then is to secure cellular stability and render it possible to so modify perturbations of cytogenic action, of vital rhythm, as to permit rational measures to check the tide of destructive changes and turn inherent forces definitely toward restoration. The brain, as the engine of consciousness, must be put in splints like a broken bone, but only for so long as is absolutely needful, or atrophy ensues.

The most efficacious means of securing physiologic receptivity, both for psychogenic and physiogenic readjustment is to place the sufferer at absolute rest, to seclude him from all outside counter influences, family, mail, news, and the like. Under no consideration should this discipline be attempted in the patient's own home, adverse influences are there too dominant. Mere physical rest, moreover, is frequently not enough. Hence it was the privilege of Weir Mitchell to initiate and develop a systematic method which he describes as "robbing rest of its evils".

#### The Personal Influence on the Jaded Self or Personality.

Dr. Mitchell would set about gradually making himself the kindly companion of this isolated, inactive, rebellious, receptive or self-pitying sufferer. He would carefully proceed to learn what manner of individual it was, and, with his rare insight, wide knowledge of the world and deep sympathy, would win to confidences, intimacies; would take gently in hand the erring ego. Through his keen artistic appreciation of varying types, of temperamental inadequacies, of latent charms or ugliness of interesting or repellent characteristics, he would achieve a perspective of the particular conflicts through which one had passed, how one had failed to meet the graver exigencies of life, why or how things had been mismanaged would, in short, get at the weaknesses, defects and disordering errors.

Here can the earlier steps whereby such confessions, self-revealings, in one so emptied of the pressing incidents of the life of relationships, be made of use in readjustments. Having learned the germinal defects, he would direct attention to ones shortcomings or errors, their nature, form, degree, and hint at how they could be modified to advantage, altered or removed; also what and how new determinations should be made and how to set about the task of rehabilitation.

Heretofore whatsoever searchings, criticisms, or recommendations—crude at best—were attempted by well meaning persons, members of the family, friends, instructors, religious guides, from partial, inadequate or prejudiced points of view. Often the

sufferer has been victimized by busy-bodies, narrow or preoccupied well-wishers, incompetent advisers—lay or professional. The pitiful effects of over-ferment on crudely optimistic "terror suggesting religionists", were often too apparent. Thus self-appraisal (autognosis) heretofore misleading or distorted, affording little or no help, rather yet more confusion led to undue remorse and self-blame.

All these tended to darken rather than illumine counsel. The point of approach to psychopathic problems was made by way of reducing to a minimum the effects of disordered, bruised, or exasperated feelings. While not wholly original with Dr. Mitchell this method was by him brought to a high degree of efficiency. He appreciated and integrated former observations along the line made by predecessors, he utilized hints and explanations from them when tenable or reputable. He deserves the credit for reducing to a workable system the pursuit of elusive emotional vagaries, the so-called hysteriodal, over-suggestive or hypochondriacal states, the neuroses, psychoses, or psychopathies, which are now known to depend so largely upon the myriad reflections of the vegetative neuroses. Only within my professional life time has this aspect of psychopathology come to receive general appreciation as being usual and not merely occasional; a part of every day practice, and not wholly the realm of "specialists".

Through such then unfamiliar avenues Dr. Mitchell—the pioneer—wrought his large successes and released the over-burdened ego. He recognized, and vividly described—sometimes in fiction, too—crude types of disordered personality as a whole, bewilderingments of instinctive life. Many of his descriptions have become classics.

Among individuals were, as always, splendid suppressed or distorted personalities, impaired by overmastering troubles due to faulty environments, repressed ambitions; hopes were then brought to the foreground, new ambitions aroused or given scope.

Dr. Mitchell made exceedingly shrewd analysis of the psyche, fully realizing the significance of repressed or suppressed or distorted sex urgings, when they really deserved incrimination, *per se*.

To be sure he may often have accredited to them less significance than they deserved; he was well aware, however, of their potentialities, and he was wise in bringing them to judgment.

These analyses of the psyche included the ego as an entirety, taking full cognizance of particular factors; half-formed pictures viewed in perspective and proportion, were clarified, faults of impulse, of character and temperament were contrasted with better, excellent, admirable suppressed endowments, and self-guidance taught, sound potentialities made available throughout.

It may be helpful to outline my personal concept of the essential points in this system of cure acquired through many years of experience as the personal assistant of the master.

First of the contra-indications. By far the larger proportion of psychopathies and many psychoses yield to judicious regulation of function, educative suggestion, followed by systematic motor education, especially in the lines of useful labors. It requires some accumen to differentiate the fictitious psychogenetic phenomena from constitutional, the essential from acquired enfeeblement.

In an individual fairly vigorous, but subjected to complex stresses, there often arise imperative irre-



pressible ideas, persistent or morbid questions, doubts, the endless "whys and wherefores," apprehensions, the multitudinous phobias, mental agitations, diffused emotional disturbances, hallucinations, cloudy memory pictures, defective orientation, anomalies of sense perception, of character and volition, vacillations, insistent perplexities, religious obsessions, and the like psychogenic phenomena. Such individuals are often better treated by educative suggestion, suitable occupation, and motor training. This is especially true where psychopathies are complicated by functional derangements, such as insomnia, anomalies of digestion, metabolism, of respiration, and especially of heart and circulation, of genitalia, of imperative movements, of tonic spasms, of exaggerated restlessness, or indolence, also of intermittent painful states, and the like.

Neurasthenia is a pure fatigue neurosis, a constitutional inadequacy, but is too commonly described as a psychopathic condition. It is characterized by (1) abnormal weakness or irritability, a mental and physical fatigability, (2) by impairment of the associative memory, and (3) by sensory disturbances of psychic origin. The symptoms are liable to wide variation in accord with disturbances in the motor, sensory, visceral or psychogenic spheres.

Abnormal fatigability leads to hypersensitiveness to all stimuli, to emotionao anomalies, paresthesias, elementary hallucinations, inexact and partial ideations, to irritability, distractibility, inability to fix or maintain attention. Hence follow despondencies and hypochondriacal ideas, and all distressingly influenced by external impressions. These are the conditions best controlled by full rest treatment; but when abnormal fatigability is present, no matter what the other phenomena, it is best to employ rest for a time. Rest affords opportunity for deliberate observation and accurate diagnosis, for forming opinions as to the length and completeness of treatment required, and to learn the special defects as well as needs of each.

Puzzling blends of psychosis, psychasthenia, hysteria, neurasthenia, etc., are calculated to confound even the elect. Given time, opportunity and wise control, they can and should be clinically differentiated; they must be, to deal satisfactorily with them. Rest and isolation prepares the ground for reasonableness, for receptivity, hence for compacts, mutual endeavor and always for repair in the more highly differentiated structures, and the autonomic nervous system.

In my earlier years of experience in this field exact knowledge was not of record. Those of us who were privileged to treat a large number of such cases were compelled to work out our own salvation. Such a master as Weir Mitchell was fully aware of the nicest shades of difference, and adapted his measures with masterful skill; and it was a liberal education to observe his conclusions evolve, his adaptations of measures, especially his personal domination adjust itself to the often kaleidoscopic fluctuations. Those who, like Paul Dubois, would accuse him of omitting some one or other needed measure, conception or principle of action, which, considered from their personal viewpoint as paramount, would only misjudge him from his writings, which are all too scanty.

#### IV.

The central point of the rest treatment is favorable opportunities for achieving psycho-physical equipoise reinforced by dominant, educative suggestion, "moral orthopedia" (Dubois), a wise training of the patient whose salient characteristic is maladaptation between his own consciousness and environment; impairment in powers of right thinking, willing, feeling, doing.

Not all cases of psychopathy need rest treatment, but isolation, like "moving the previous question" cuts off debate, aids in placing the individual in the "hypnoidal state" of Boris Sidis, which, by eliminating the life of customary relationships, enhances receptivity not only of mind but of all body cells and fluids.

By means of absolute rest, isolation, forced and regulated feeding, we can best plow and harrow the ground, enrich the soil, and then proceed to sow the seeds of right thinking, feeling, willing and acting. This is the key to the situation: to place the psychically entangled individual, whose central defect is fear, anxiety, suspense, or exhaustion, in the best possible attitude for educative suggestion and functional training. Time, abundant time, is required to disentangle with ample opportunity to slowly but surely conserve the budding growths of vigor and wholesome-mindedness. Who is it that gets well the soonest and remains most permanently benefitted? Always the most frank, obedient, the most intelligent and cordially co-operative.

When the dissociation or disintegration of personality, the psychic instability, is corrected, the infinite changeability mitigated, the depleted vegetative nervous system, hence metabolic and other functions restored to normal rhythms, we can then proceed to deal hopefully with the abnormal fatigability and other neurasthenic substrata. If the getting of a patient to bed is not easy, as often happens, surely the resumption of activities after some weeks of rest is no light enterprise; that is, to do so safely and permanently. Here we may use as analogy the apt definition by Richard Croker, who avers: "That man is an honest man who, when bought, will stay bought." To restore is only the beginning; to make and keep well and self-reliant is the real objective.

#### V.

Health is, among other good things, a state of equipoise between consciousness and environment. Where months or years have been passed in a state of conuict, of disordered personality, it is something of an exploit to finally turn that individual at large upon society restored and in a right mind. It is more; it is an achievement to make sure of ultimate results. The physician must then indeed become, and continue to act as the guide, philosopher, and prolonged friend.

Among the chief agencies of the after cure, of rest treatment, is motor education and persistence in right doing. Both motor and psychic right direction in the months and years to come is of more real importance than even the preliminary though radical measures. Here the counsellor shall stand or fall, according to his judgment, his personality, above all to his persistence.

Yet more than all does ultimate success depend on the inherent wisdom of the patient, his or her capacity to realize the need for good counsel long maintained.

A state of long continued ill health, or a series of ailing conditions tend to render an individual unattractive or positively irksome to the family adviser; whereupon it is well to place him on her for the time in the hands of someone else who can, and will, use every effort to secure relief or cure. This other physician need only be wise and of practical good sense, not necessarily a neurologist. Again, it sometimes happens that a neurologist exhibits his highest and most estimable qualities when he furnishes a correct diagnosis and outlines the treatment. As a rule he is too busy to descend to details of sleep, baths, food, outings, amounts and forms of exercise, gradations of employment, itineraries, and the like. This the general practitioner can and should do. Even the sculptor thinks his work almost done when he finishes his sketch and turns over to the skilled artisan or mason the actual cutting of the marble block.

The dominant note of the rest treatment lies in the fact that the nerves, spinal, sympathetic and now of new significance the vegetative, of the neurosthenic being slowly and thoroughly tired, all the cells and tissues of the body, the complex vegetative nervous system and also the brain cells, need to be put as nearly out of commission as possible, to secure slow but certain repair or metabolic equilibrium. To effect this it is not enough to place the patient in bed and outline a series of measures calculated to return health to one suffering from a condition of acute illness; but, in dealing with the mentally jaded, it is imperative to erect a barrier to those powerful agencies for psychic harm, among which are to be numbered the knowledge and discussion of the ordinary affairs of life. The physician often fails to appreciate the fact that in the circumstances of the life of every adult, young or old, there comes much calculated to aggravate the condition of over-wrought consciousness, of reflex irritability. Hence isolation is of paramount importance in most cases of persistent ill health, in which the psychic and emotional element is the dominant factor. The isolation must be, in extreme cases, complete.

After this shut-in-ness has been long enough maintained it may be gradually and carefully omitted. Again, hyper-alimentation is needed, because long continued ill health inevitably brings about destructive depletion in such paramount structures as the nerves. And these, as is known by those who search for ultimate truths, are ever slow to repair. If the fact be lost sight of that in states of exhaustion, bodily tissues regain tone in very different degrees of rapidity, fatal mistakes will be made and failures will certainly result, and become due to the fault of the medical adviser. The principle is well established that much time and wise careful readjustments are required to overcome the dangerously exhaustive factors of modern life, hurried and harassed as most people are by the competitive struggles of existence.

When complete relaxation has become established and isolation recognized as inevitable, the subject looks forward with some healthy interest to the rotation of the day's doings. The mind views external things differently, provided the standpoint is radically altered. The procedures always raise a curious expectancy and the various measures are anticipated with steadily increasing interest. The dif-

ference in the mental outlook is simply this: during the period of activities by which exhaustion was produced, there was a constant succession of events in which the patient exercised a more or less constant effort; the attention was perpetually on the strain, as is proper and healthy enough if the organism be in good equipoise, but becomes exhausting when the driving forces are lowered below normal. The patient who requires the rest treatment is no longer in the position to drive his business, whatever it may be, but has fallen into the condition of being unable to do so and therefore the business drives him. So long as the ship is under way and proceeding by its ordinary motor forces it can be steered satisfactorily. If the extraneous driving forces become too strong, so that the capacity for guidance is impaired, a confident, expert steersman or pilot is demanded.

An essential element of full mental and character growth can only come through the enjoyment of seasons of solitude and opportunity for quiet, reflective thought. In the lives of all great thinkers, who have swayed the world from their intellectual eminence, it will be found that once or oftener they have lived for long periods separated from the busy routine of affairs and have been provided with, and accepted, opportunity for solitary communion with themselves and perhaps good books.

This protection from hurtful impacts is not a period of punishment, nor even of banishment to be patiently endured, but rather a welcome occasion for acquiring serenity of mind, of poise which all of us have need and few get enough. Thus can be secured a moral perspective of one's self.

In conditions of protracted exhaustion which are likewise accompanied by nutritional loss, the first gain is in the line of blessed tranquility, then in digestive and circulatory power, then in flesh, roundness and color. These all are shown in a few weeks or months at most if all goes well, and no serious organic impairment underlies. The one factor most slow to achieve is a capacity for sustained effort. It takes a year or even two or more years before a patient with well pronounced exhaustion can expect to regain the state of health once enjoyed. This must be made clear to the patient and above all to the family—otherwise discontent will be manifested. Indeed, it is safe rule to promise no full vigor short of twelve or even twenty-four full months. Anything short of that is clear unexpected gain.

(To be concluded)

#### Syphilis of the Nervous System in Children.

In the congenital type of syphilis, the clinical signs seem to point to a more general involvement than is the case in the acquired type, Edward L. Hunt says. The involvement of the nervous system occurs oftener in the congenital cases. Therefore, the lumbar puncture becomes an essential part of the examination of every case of unsuspected syphilis characterized by nervousness, backwardness, and defectiveness.

Juvenile paresis is the most frequent of all the various forms of syphilis seen in children. It is very similar to the adult type.

The author comes to the following conclusions:

1. The condition is common.
2. The nervous system may be involved early.
3. A lumbar puncture may be of great help and should be a routine part of the examination of every nervous child.
4. Syphilis in children necessitates a blood and spinal fluid examination of the parents and vice versa.
5. Treatment is not very promising.
6. The stigmata are not necessary nor even frequent.—(*Amer. Journ. Syph.*, Vol. V, No. 2, April, 1921.)





## THE TITLE CONTEST

In the April issue of the *MEDICAL TIMES* an unnamed sketch was published and the readers of the publication were invited to submit what they believed would be the most fitting title. Three hundred dollars in prizes were offered for the three best titles.

The contest aroused much interest, not only because of the remuneration promised the successful contestants, but because the sketch had the human touch and dealt with a subject in which most readers are interested. Soon after the initial appearance of the cartoon replies began to arrive. Letters came from every state in the Union and from several foreign countries. More than a thousand answers were received and, if one were to draw a triangle making one point Alaska, the second Switzerland, and the third the Philippine Islands, one would practically cover the territory in which the contestants live.

When the judges commenced their work of selection, they found a task of tremendous magnitude. Many of the titles were exceedingly clever, making selection doubly difficult. It was interesting to note how many persons suggested the same titles. Of these "In Arms," "Twixt Love and Duty," "The Crisis," "The Climax" and "Engaged" easily led in point of numbers. Some called the picture, "Faith, Hope and Charity," and others considered "Embracing Opportunities," "Hospitality" and "Holding His Own" as best fitting the picture.

A number of the answers indicated that our readers possess a keen sense of humor. After much deliberation the judges awarded the first prize of One Hundred and Fifty Dollars to Dr. Frank Gordner, of Montgomery, Pa., for his title "In the Good Old Medical Times"; the second prize of One Hundred Dollars to Dr. Leon Solis-Cohen, of Philadelphia, Pa., for "A Post-Operative Psychosis." Dr. A. C. Victoriano, of the College of Medicine and Surgery, University of the Philippines, Manila, receives the third prize of Fifty Dollars, for "Positive Chemotaxis."

Although no announcement had been made of any additional awards the judges felt that a certain number of the titles which were very good, but not striking enough to win the regular prizes, should be given honorable mention and, with the winners, be given a year's subscription to the *MEDICAL TIMES*. These contestants, with the titles they submitted, are Dr. J. J. McCarthy, Philadelphia, "The Aseptic (Acceptic) Solution"; Elsy Lüdin, Basle, Switzerland, "Pre-operative Proceedings"; Dr. Carl Wilson, Ranger, Tex., "Sterile Love-Making"; Dr. M. J. Marsh, Hannibal, N. Y., "A Slip in Surgery"; Helen B. Mohr, Cleveland, "Love versus Precaution"; Dr. Fred S. Clark, Columbus, O., "Forbidden Fruit"; Dr. E. E. Lowry, New Madison, O., "Times—Neither Medical nor Surgical"; Dr. Carroll J. Mather, Mount Clemens, Mich., "If Patients Won't,

Doctors Will"; Dr. Arend VanderVeen, Grand Haven, Mich., "Clinical Test of Peripheral Paralysis of Right Serratus Magnus Muscle"; Dr. George K. Blair, Salem, Mass., "Temporizing"; Dr. E. H. Dunn, Kansas City, Mo., "Embracing the BEST Antiseptic Medium"; Dr. E. W. Harrison, Winfield, Ia., "Side Lights on Surgery"; Dr. Augustus Davis, Bernalillo, N. M., "Hospital Rules Broken; Love Wins"; Dr. Lyman I. Goldstein, Camden, N. J., "Loving Interne (in turn)"; H. S. Noel, Indianapolis, "The Interne Takes a Stimulant"; Nancy Perkins, Palatine, Ill., "The Medical Press"; Dr. G. L. Kessler, Brooklyn, "Post-Operative Infection with Probable Union"; Dr. W. L. Rickard, Brooklyn, "An Old Story in Modern Garb"; W. E. Tox,

North Hoosick, N. Y., "Medicine Droppers"; Dr. Jas. W. Fleming, Brooklyn, "Patient Waiting"; Dr. W. F. Jones, New York, "Two Incurables." We regret the necessity of excluding the title sent in by Dr. Curran Pope, of Louisville, Ky., "Where Professions Meet Upon the Level and Part Upon the Square." This would undoubtedly have won a prize, had it not been for the rule that no title submitted should consist of more than ten words.

The MEDICAL TIMES desires to thank all of its friends who took part in this contest. Checks have been mailed to the three prize winners and those receiving honorable mention have been placed on the mailing list of the MEDICAL TIMES for a yearly subscription.

THE JUDGES.

## Diagnosis and Treatment

### Diphtheria.

Professor Schick, of Vienna, presents an outstanding article on the Predisposing Factor in Diphtheria. The very greatness of the accomplishment reminds us forcibly how much remains to be done before we can interpret with any degree of certainty even those phenomena of infection which are easily observed and of common occurrence. The author refers to the early struggles of the young science of bacteriology against the ever alert powers of darkness. This remark serves as a useful reminder of the fact that many of our basic truths were only yesterday held to be fantastic heresy. We need only refer to the fight that centered around the present conception of immunity and the phenomenon of bacterial carriers.

Diphtheria has lost much of its element of dreaded terror since the advent of specific serum therapy. It is well to remember, however, that the disease is not as harmless yet as many observers who do not come into close contact with it may be led to believe. It is left to pediatricists and the hospital staffs to realize to its full extent the peculiarly treacherous character of the affection.

The case incidence of diphtheria in New York City reached its recent climax of 433 cases in the week of April 30th. This was by far the highest figure shown by any individual disease during that period. On July 23rd the incidence had dropped to 136, while the mortality amounted to nine cases during the week, which represents one per cent. of all deaths. Though the death rate of laryngeal infection is no longer ninety per cent., we still find the worst features of diphtheria in this variety. Holt estimates the mortality of laryngeal diphtheria at forty per cent., while many English observers place it even at fifty per cent. and over. If we conclude this short survey with a reference to cardiac and nervous sequelae, we will have succeeded in emphasizing the undiminished urgency of combating diphtheria.

In his present paper Professor Schick gives us an interesting outline of the early history and later development of the intracutaneous test. He also indicates the gist of the theoretical considerations and some of the experimental work which form its scientific basis. In discussing natural protection against infection emphasis is laid on the mechanical factor, while no special reference is made to the defensive forces centered in the vital processes of cell function. One may wonder if a more active share in the defense of the body should not be attributed to the cells of the pharyngeal mucous membrane, rather than to the mechanical structure of the tissues. The author mentions an instance, where trauma broke down the efficiency of the mucosa and an attack of diphtheria resulted in a carrier after a tonsillectomy had been carried out. Is not the process identical in the type frequently met with in clinical practice, where an acute non-specific tonsillitis is followed after an interval by an attack of true diphtheria? We need only presume that the onslaught of the first variety of organisms, the shock troops, damaged the previously healthy epithelium in such a way that the originally powerless diphtheria bacilli found a suitable soil in the now devitalized tissues. MacCallum's *Textbook of Pathology* contains an interesting photomicrograph showing an advanced line of streptococci actually within the tissues of the pharynx, while diphtheria bacilli have gained a footing on the more superficial necrotic portions. Though other explanations cannot be altogether ruled out, it may be admitted that it has all the appearance of a case of genuine symbiosis. In any case, the fact that the mucosa becomes damaged in the course of diphtheria, makes it highly probable that absorption of toxins of other than diphtheritic origin does actually take place. This is a possibility which seems to us worthy of more consideration than has hitherto been accorded to it.

Schick has forged a weapon which enables us to attack diphtheria from many different points of vantage. For the first time we are able to determine the susceptibility of large bodies of individuals with speed and accuracy and within the bounds of economic possibilities. It is, perhaps, with justifiable pride that we point to the progressive spirit our health department has shown in quickly appreciating the potentialities of the test in utilizing it on such a large scale without courageous enterprise. The good results obtained in New York City are due to a great extent to the wise publicity service which has widely diffused a knowledge of the merits of the test. We remember with admiration the public spirited demonstration given at the recent New York State Medical Society exhibition in Brooklyn.

Schick's test has confirmed the findings of clinical observation with regard to the dangerous age. Children between the ages of six months and six years show the greatest susceptibility. The author points out that in at least one important point the test is superior to bacteriological examination: this is the decision, whether a carrier of diphtheria bacilli in whom tonsillitis develops, suffers from a superimposed attack of diphtheria, or whether he continues to be resistant to the specific organism and merely has a septic sore throat. In the latter case, the bacteriological examination would indeed show the presence of Klebs-Loeffler bacilli, but Schick's test would be negative and thus reveal the true state of affairs. Again, during an epidemic of diphtheria in an institution, such as a school or a hospital, there would be no need to inflict the annoyance inseparable from a course of serum immunization, on those individuals who are naturally protected, as demonstrated by the Schick test. Finally, we may point out that the test has been and to an even larger extent in the future will be an important help for researches into the nature of immunity and infection. The test has added another triumph to the fair fame of Æsculapius's youngest daughter, Prophylaxis. It also is endowed with a special attraction, inasmuch as it stimulates the development and rewards the public spirited application of a rare and precious faculty of the mind of man—foresight.—(*New York Med. Jour.*, August 17, 1921.)

### Differential Diagnosis in Adults.

Too often physicians have a mental picture of typical myxedema, which prevents them from looking beyond for the atypical but more common manifestations of hypothyroidism. The presenting symptoms of latent hypothyroidism so often direct the attention of the medical observer rather away from them than toward the thyroid gland that mistaken diagnoses in light cases of hypothyroidism are frequent. Thus the sub-thyroid patient may consult the internist for failure of memory and the power of concentration, suggesting the cerebral changes of arteriosclerosis, which itself is not uncommon in hypothyroidism. Gastro-intestinal symptoms such as lack of appetite, dragging sensations in the abdomen or constipation, may send the patient to a gastro-enterologist; a thyroid psychosis to an alienist; again weakness and pains in the joints and limbs or flat-foot may cause the orthopedist to be consulted. Yet all the above symptoms may be but expressions of the lack of proper functional activity of the thyroid gland.

One of the most important conditions confused with hypothyroidism in the adult is neurasthenia. This syndrome is characterized by mental irritability and depression, loss of memory and the power of concentration, eyestrain for little reason, great physical asthenia, parathesias, reflex gastro-intestinal neuroses, and vague pains in various areas. Yet each and every one of these symptoms may be expressions of hypothyroidism. In general, it seems that if our diagnostic methods were more refined we would have less recourse to the diagnosis of neurasthenia for want of a more definite ailment.

Of the gastro-intestinal conditions, which require differen-

(Continued on page 27)



# Sedobrol

"Roche"

**THE HOT "BROMIDE BROTH"**  
for

**INSOMNIA**

**MENOPAUSE**

**NERVOUS AGITATION**

**NEURASTHENIA**

**SICKNESS of PREGNANCY**

Each cube contains 17 grains Sodium Bromide, vegetable albumen, and seasoning.



1 or 2 cubes in a cupful of very hot water produces a very palatable broth.

*Sample and Literature  
on application*

**THE HOFFMANN-LA ROCHE CHEMICAL WORKS**  
**New York**

## The Management of an Infant's Diet

In extreme emaciation, which is a characteristic symptom of conditions commonly known as

### Malnutrition, Marasmus or Atrophy

it is difficult to give fat in sufficient amounts to satisfy the nutritive needs; therefore, it is necessary to meet this emergency by substituting some other energy-giving food element. Carbohydrates in the form of maltose and dextrins in the proportion that is found in

### Mellin's Food

are especially adapted to the requirements, for such carbohydrates are readily assimilated and at once furnish heat and energy so greatly needed by these poorly nourished infants.

The method of preparing the diet and suggestions for meeting individual conditions sent to physicians upon request.

**Mellin's Food Company,**

**Boston, Mass.**

### Public Health Service Institutes.

In view of the great success of the Institute of the Public Health Service held in Washington last December and of the difficulty, due to the conflicting dates of other meetings, of arranging for another on the same scale this fall or winter the Service some time ago decided to try to meet the insistent nation-wide demand by arranging a series of Institutes to be held in the larger widely scattered cities of the United States. Locations and dates were so arranged that at least two or three of the meetings should be held within reasonably convenient reach of nearly every resident of the country; and a tentative schedule of courses and of speakers was mapped out. The plans were promptly adopted by many cities, with some variations to meet special local needs.

Cities and dates so far listed are as follows: Hot Springs, Ark., some date in November; New Orleans, La., and Columbia, S. C., Jan. 9-14; Dallas, Tex., and Birmingham, Ala., Jan. 16-21; Memphis, Jan. 23-28; Louisville, Jan. 30-Feb. 4; Indianapolis, Feb. 13-18; Pittsburgh, Feb. 20-25; Cleveland, Feb. 27-Mar. 4; Lansing, Mich., Mar. 6-11; Chicago, Mar. 13-18; Minneapolis, Mar. 20-25; Portland, Ore., and Kansas City, Kans., April 10-15; Spokane, Wash., and Newark, N. J., Apr. 17-22; Helena, Mont., and Albany, N. Y., Apr. 24-29; Denver, May 1-6; Washington, D. C., in late May. Some dates in the schedule remain vacant, and these are being rapidly allotted.

The Institutes were planned to run for a week; and this length has been almost universally adopted. The basic courses include from three to six lectures on tuberculosis, child hygiene, nutrition, clinics, and health centers, communicable diseases, non-communicable diseases, industrial hygiene, sanitary engineering, administrative problems, mental hygiene, medical social work, syphilis, gonorrhea, protective social work; and the delinquent. Single lectures will also be given on special occasions. Two Institutes, those at Hot Springs and Chicago, will be devoted especially to venereal diseases.

The lecturers who will speak at some or all of the gatherings are the best available in their particular lines in the country. Among them are Frederick R. Green, John H. Stokes, A. J. McLaughlin, William C. White, Valeria Parker, W. F. Snow, W. A. Evans, and M. J. Rosenau.

### Health Fortnight to Mark Semi-Centennial of American Public Health Association.

The fiftieth annual meeting of the American Public Health Association will be the occasion of a Health Fortnight. From November 8-19, New York City will be the scene of activities connected with this event, and publicity with its slogan "Health First" will stimulate interest throughout the country.

Health Fortnight will include three major divisions—a Health Institute from November 8-11; a Health Exposition, November 14-19; the Fiftieth Annual Meeting of the American Public Health Association, November 14-19. Representatives from virtually every State in the Union and from many foreign countries will participate in the extensive programme.

To focus the attention of the general public upon this celebration, November 13th will be observed as Health Sunday in many churches. Health Day will also be observed in the synagogues and in numerous business and social organizations. Speakers prepared to talk authoritatively on health topics will be furnished on request to any of these organizations. The New York County Chapter of the American Red Cross is co-operating with the general committee in the arrangement for this service.

The Public Health Exposition will undoubtedly make the widest appeal to the lay public. It will be the largest affair of its kind ever held in New York City. It will be conducted under the joint auspices of the Department of Health of the City of New York and the American Public Health Association. Already allotments of space indicate that at least two entire floors of the Grand Central Palace will be occupied by exhibitors. The exhibits will include those of educational and philanthropic organizations and those of commercial houses producing approved articles of health value.

Every legitimate means will be utilized to promote attendance at the Exposition, for this will be the most effective way in which the message of Health Fortnight may be brought to the public. The fact that a similar health exposition held in Chicago a year ago drew an attendance of over one hundred thousand indicates the extent to which this form of popular education may be carried. Naturally, in New York with its larger population, a proportionately greater attendance is expected at the Exposition. The profits from the sale of tickets, after the cost of the Exposition and the Convention are defrayed, will be devoted to establishing nutritional clinics for the benefit of undernourished children. In this connection, Dr. Royal S. Copeland, Health Commissioner of the City of New York, will

present a series of educational exhibits in which instruction in the feeding of children will be featured. Dr. Copeland is Chairman of the Exposition; A. W. Hedrich of the American Public Health Association is Secretary and Dr. C. E. North, Treasurer and General Manager.

The Health Institute from November 8-11, will present to visitors to the Convention an unusual opportunity to see the operations of established methods applied to various phases of public health work. About forty demonstrations have been planned. The thoroughness of the program may be gathered from the fact that the Institute is sponsored by the American Public Health Association, the Health Department of the City of New York, the New York State Department of Health, the U. S. Public Health Service, the National Health Council, and the Committee on Public Health of the New York Academy of Medicine, with the co-operation of approximately one hundred other organizations. The Chairman of the committee in charge is Dr. W. A. Evans. The Director of the Institute is Dr. D. B. Armstrong of the National Health Council.

Following the week of the Institute and the observance of Health Sunday, will come the opening of the scientific sessions, the meetings of the American Public Health Association in celebration of its Semi-Centennial. The sessions will begin on November 14th and the headquarters will be at the Hotel Astor, Broadway and 44th Street.

The scope of the meetings is indicated by their division into the following: General Sessions, Public Health Administration, Child Hygiene, Public Health Publicity and Education, Laboratory Section, Vital Statistics Section, Industrial Hygiene Section, and Food and Drug Section. Speakers before these sections will include health workers of world-wide repute.

It is almost unprecedented to find an organization celebrating its Semi-Centennial, while its founder is on the verge of marking his own centennial. This is the case, however, with the American Public Health Association, for its founder, Dr. Stephen Smith, although in his 99th year, is still active and will participate in the meeting. A banquet will be held in Dr. Smith's honor as a part of the Semi-centennial celebration.

As a permanent souvenir of the Semi-centennial and as a record of the work accomplished, a Jubilee Historical Volume entitled, "Fifty Years of Public Health" will be ready for distribution during Health Fortnight. Although, as the title indicates, the book concentrates on progress made in the last half century, it also traces the public health movement from its early beginning. Further information regarding the Semi-centennial may be obtained from the American Public Health Association, 370 Seventh Avenue, New York City.

### Educational Campaign Against Cancer.

The American Society for the Control of Cancer is making arrangements for a National Cancer Week to be held throughout the United States and Canada from October 30 to November 5, 1921. This is the first attempt on the part of the Society to carry out a uniform campaign at one time throughout the country, and it earnestly bespeaks the co-operation of all national, State, and local agencies interested in public health.

The aim of this campaign is entirely educational, and it is desired to reach all sections of the country and as large a part of the population as possible with the message of cancer control. The three principal educational activities will be:

- (1) The giving of lectures by well-known physicians and surgeons, who have volunteered for this service and who compose the lecture bureaus of the State and local committees for cancer control recently organized by the society.

- (2) The distribution of literature at all meetings held during the week.

- (3) Suitable publicity in the lay press, official health bulletins, and articles in professional journals.

For the purpose of this campaign the American Society for the Control of Cancer has organized campaign committees in practically all communities of 5,000 or more population, and has arranged for the appointment of a chairman of each of these local committees, who is to select committees to carry out the program locally.

The Society seeks the co-operation and assistance of all State and local boards of health, State and county medical societies, nursing and other organizations.

### Safety-Pins in the Stomach.

Chevalier Jackson and William H. Spencer, Philadelphia, report two cases. In one case, two safety-pins were removed from the stomach of a 6 months' old infant by gastroscopy, after a sojourn of twenty-seven days. In the second case, an open safety-pin had been in the stomach for seven weeks. It regurgitated into the esophagus, and was removed by esophagoscopy.—(J. A. M. A.)



## "BENZYLETS"

ARE TASTELESS:—

there is neither gastric disturbance nor repugnance on the patient's part; the reverse is usual when solutions of benzylbenzoate are used. Each Benzylet carries 5 min of medicinally pure benzylbenzoate in a soluble gelatin globule. "Benzylets" are made for professional use only and your druggist can supply them in boxes of 24 with a regular prescription label.

**BENZYLETS**

**SHARP & DOHME**

# LISTERINE

*A Non-Poisonous, Unirritating Antiseptic Solution*

Agreeable and satisfactory alike to the Physician, Surgeon, Nurse and Patient. Listerine has a wide field of usefulness and its unvarying quality assures like results under like conditions.

**As a wash and dressing for wounds**

**As a deodorizing, antiseptic lotion**

**As a gargle, spray or douche**

**As a mouth-wash-dentifrice**

Operative or accidental wounds heal rapidly under a Listerine dressing, as its action does not interfere with the natural reparative processes.

The freedom of Listerine from possibility of poisonous effect is a distinct advantage, and especially so when the preparation is prescribed for employment in the home.

**LAMBERT PHARMACAL COMPANY**

**ST. LOUIS, MO., U. S. A.**

### Pneumococcus Antigen.

Based upon the laboratory and clinical evidence of Dr. E. C. Rosenow, now of the Mayo Foundation, Rochester, Minnesota, who devised Pneumococcus Antigen, certain advantages are claimed for this product by its manufacturer, Eli Lilly & Company.

The experience of physicians, qualified by their use of the antigen to pass judgment, apparently has sustained and strengthened these claims. Pneumococcus Antigen is not an ordinary bacterial vaccine; it is not an antipneumococcal serum, but a specially prepared antigenic substance (partially autolyzed pneumococci in normal salt solution), which has the simplicity of vaccine administration by subcutaneous injection and presents none of the difficulties of an intravenous antiserum injection. Its harmlessness is assured; there are no disagreeable after-effects, so frequently a deterring factor to serum therapy. It is polyvalent and may be used in all types of pneumococcus infections, obviating the necessity for typing. The course of the disease, as a rule, is different in those cases treated with the Antigen from that of cases where it is not used. Better results are said to be obtained when the Antigen is given early and repeated at short intervals until the temperature has returned to normal and remains normal for a few days.

Judging from reports, physicians should find in Pneumococcus Antigen a remedial agent well worth trying in their pneumonia cases. It is supplied through the drug trade and further information concerning it may be secured through Eli Lilly & Company, Indianapolis, Indiana.

### The Prescriber's Cough Syrup.

Syrup Cocillana Compound, P. D. & Co., merits the characterization of "the prescriber's cough syrup." It is not offered as a panacea. There are definite indications calling for its use, and it is scientifically compounded from drugs which are selected with one idea in mind: that pharmaceutically elegant and therapeutically efficient preparations can be built up only with drugs of superlative quality.

Cocillana is an expectorant of the ipecac type, but in therapeutic doses it is superior to ipecac because by its action the dry congested bronchial mucosa is relaxed into a freely secreting membrane without even a suggestion of nausea or vomiting. This is so because it is excreted through the respiratory tract and has a selective affinity for the mucous glands of the bronchi.

The other ingredients of the prescription are so blended with the cocillana as to enhance its sedative expectorant action, to allay irritation, to quiet excessive cough, and to alleviate pain and the raw sensation incident to the stage of congestion in bronchial and laryngeal inflammations.

### To Build An Addition to Haddon Hall.

Leeds & Lippincott Company announce the signing of a contract with the George A. Fuller Company, of New York, for the building of an addition to Haddon Hall from plans prepared by Rankin, Kellogg & Crane, architects, of Philadelphia, Pa.

The new Boardwalk Wing will be directly back of the stores, arcade and pavilions which were built last year. The height will be twelve stories and the frontage toward the Boardwalk 150 feet and on North Carolina Avenue 62 feet. It will be of fireproof construction of steel and brick with terra-cotta trimmings and a granite base course. The first three stories will be faced with Indiana limestone.

The new structure will contain 147 bedrooms and 147 baths—most of them with direct view of the ocean—and public space, parlors and exchanges. With this addition the capacity of Chalfonte-Haddon Hall will be about 1,200 persons.

Work is to commence on October 17, 1921, and be completed in time for the summer season of 1922.

### Gastric Analysis.

An examination of the abnormal gastric residuum was made by William W. Lermann, Martin E. Rehfuess and Philip B. Hawk, Philadelphia. The main points in this discussion are: The examination of the fasting stomach is in reality an examination of the interdigestive period of gastric activity. The average normal findings and the mean variations are a basis for the interpretation of pathologic variations. The determination of swallowed mucus as an evidence of focal infection above the level of the cardia is one of the simplest and most satisfactory means at our disposal for accurately determining the presence of an open focal infection. The examination of the residuum is vitally important, as it is likely to reveal the presence of pathologic exudates which are obscured by the food material during the digestive phase.—(*J. A. M. A.*)

### Ethics of Advertising.

The history of advertising by members of the medical profession is interesting. In early days it was the most advertised of all professions or vocations; in fact, medical men were leaders in methods of advertising and in the thoroughness with which these methods were followed up. Later there came a great reaction against public methods of personal publicity, and the profession went to the other extreme and did not permit advertising by any of the usual means employed by other professions and vocations. Neither of these extremes has proved satisfactory to the profession or to the public.

The restrictiveness of our ethics as they have stood for a long time is responsible for a variety of methods of personal promotion, some of which are of uncertain propriety and of questionable value to the man himself. The pendulum has again begun to swing away from the exclusiveness in publicity.

It probably is true, as it undoubtedly should be, that public advertising in lay periodicals and by circulars and other methods used in commerce never will be permitted by our profession. Certainly there ought to be an intermediate ground somewhere that would permit dignified ethical representation by institutions, organizations, groups and individual physicians to make their qualifications known to people who may desire their services.

It is interesting in this connection to call attention to the following resolution passed unanimously by the Council of the State Medical Society at their last meeting in Coronado:

"It was unanimously agreed that, in the opinion of the Council, the insertion of appropriately worded cards by physicians and other professional men in the advertising columns of the Journal is ethical, permissible, and should be encouraged."—(*Cal. State Med. Jour.*, August, 1921.)

### Information Wanted.

This caption might also be written with a question mark, that is, "Do you want information?"

It is a fact, admitted by most of us, that little can be accomplished without organization and co-operation. There was founded, some ten years ago, an association of which we have heard very little but which has accomplished much for the doctor who, in the legitimate practice of his profession, has had to fight inimical legislation on the one hand, and the invasion of an army of drugless healers on the other. In the face of countless obstacles, the doctor has held his own, but he is still fighting for the privileges and prestige to which he is entitled.

The organization we refer to is not a medical society; yet its interests are all with the medical profession. We refer to The American Pharmaceutical Manufacturers' Association, founded ten years ago.

The medical profession can hardly realize the vast amount of good this Association has accomplished in fighting legislation, both national and local, which was unjust to physicians and destructive to the growth of better pharmaceutical methods. In addition to the effective legislative work in defense of the doctors' rights, much has been accomplished in the way of laboratory efficiency, better manufacturing methods, and the elimination of waste, all of which has indirectly benefitted the doctor in his combat against disease.

There are other larger organizations which have been active in the medical field. The doctor is acquainted with these, and with their work, however, there is an opportunity for the physician to become better acquainted with the American Pharmaceutical Manufacturers' Association, and to make use of its various committees. In turn, the Association wants information from individual doctors as to the problems which confront them in their local fields, as well as from the medical profession as a whole.

If you are cognizant of any legislation pending in your state which, in your opinion, does not give the doctor a square deal, it will pay you to pass the information on to the American Pharmaceutical Manufacturers' Association. If there is any information that you desire in the field of manufacturing pharmacy, you will be served efficiently on request. If you have any suggestions to offer, they will be gladly received and promptly attended to at the headquarters of the Association, 32 Liberty St., New York City.

### Chancre of the Gum with Report of a Case.

Klauder reviews the literature, and gives history of a case of chancre of the gum, because of the rare occurrence of this kind of chancre—only 112 cases have been reported in the literature. There are usually two types of chancres seen on the gum. The first is the abrasive or erosive chancre. The second type is an ulcerative type of chancre. Bibliography with article.—(*Archiv. Derm. and Syph.*, May, 1921.)



# ANUSOL

(Trade-Mark)

## Hemorrhoidal SUPPOSITORIES

**"They break the 'Vicious Circle' in Hemorrhoids"**

Hemorrhoid sufferers are always inclined to become careless and dilatory in their bowel movements, for fear of painful defecation.

And right there starts the "vicious circle": constipation, local irritation, aggravated Hemorrhoids, painful defecation, increased irregularity, and so forth.

Anusol Suppositories remove the dreaded strain and the reassured patient resumes his regular bowel function.

Then the excellent healing and tonic action of Anusol Suppositories can *set in* and do its utmost without *set-back*

And the utmost of Anusol Suppositories accomplishment is the utmost in Hemorrhoidal therapy.

*Ample Trial Quantity and Literature from*

**SCHERING & GLATZ, Inc., 150 Maiden Lane, NEW YORK**

### 25,000 Lives Saved in State in Five Years.

Speaking of the 1921 Conference of Sanitary Officers and Public Health Nurses of the State of New York, Dr. Hermann M. Biggs, State Commissioner of Health said that the prophesy which he made that 25,000 lives in New York State be saved within five years if the State Department of Health received proper support from the legislature, had come true.

Many years ago Dr. Biggs as a result of experience in various health campaigns became convinced that within certain natural limits any community could determine its own death-rate provided only that the public health administration was efficient and the appropriations for the State Health Department have been generous and the prophesy that 25,000 lives could be saved in this State in five years has been more than verified. No one could foresee the occurrence of the war or the influenza epidemic with its ravages, and the results have therefore been somewhat delayed.

The general health conditions throughout the State have been exceptionally favorable. The death-rate when computed for the year ending July 1, 1921 is far the lowest in the history of the State. If this rate should prove to be approximately the annual rate for 1921 it would mean a decrease of 12,500 deaths in the state outside of New York City for the year 1921.

Dr. Simon Flexner, Director of Laboratories, Rockefeller Institute of Medical Research described some experiments made at this Institute with mice with the object of throwing light on the movement of epidemic diseases like influenza, infantile paralysis, meningitis, etc. The behavior of these epidemic diseases is very obscure and as a result of experiments carried on for the past two years certain facts have already been brought forward in clearing up the mystery connected with the spread of epidemics.

### Premature Deaths Can Be Prevented.

"Too many people die prematurely, as a result of the degenerative diseases of the heart, kidney and blood vessels and many of these deaths could be prevented if people only took the opportunity of obtaining a physical examination at least once a year," said Dr. John R. Williams of Rochester, N. Y., at the 1921 Conference of Sanitary Officers and Public Health Nurses of the State of New York.

"The degenerative diseases come on insidiously and hence are overlooked and neglected. Many cases are not detected except when they first present themselves for life insurance examination or when they completely break down and then call in a physician. In order to prevent such a breakdown it is necessary to lead a hygienic life, to avoid alcohol and over-eating and to be frequently overhauled."

### Hay Fever Curable.

"Great advances have been made in the treatment of asthma and hay fever" said Dr. Albert Vander Veer, Jr., of New York at the Sanitary Conference recently held at Cornell University. "It is now possible to completely cure a great many cases which formerly seemed hopeless. It is first necessary to find the cause for the asthma or hay fever and this is readily determined by the use of a very simple skin test in which use is made of extracts of pollen, food, animal dusts, etc. Having discovered the nature of the offending substance which is the basis for the hay fever or asthma, treatment is begun with the use of a vaccine made from these substances. The results in a number of cases in which this method of treatment has been tried out have been remarkable; a great many people being entirely relieved and others greatly benefited."

### Action of Cascara Sagrada.

Hugh McGuigan, Chicago, does not agree with the view usually set forth in textbooks that cascara sagrada is an ideal drug and fool proof. He would confine its use to those cases in which from 1 to 2 c.c. has a definite action. Larger doses would seem to do more harm than good. They may produce an inflammatory condition of the bowel, with pronounced nausea and griping. The nausea may be produced by the therapeutic doses recommended in some textbooks. It only rarely leads to vomiting. Cascara should be used only as a laxative, never as a cathartic. When more than 2 c.c. of the fluid extract is needed to produce a laxative effect, another drug should be added or substituted. Small doses several times a day seem to give better results than the sum of these doses given in a single dose.—(J. A. M. A.)

### Opportunities for Dispensary Service.

The Section on Venereal Diseases of the Associated Out-Patient Clinics has offered to act as a clearing house for information regarding opportunity for dispensary assistants in the venereal clinics in New York City.

A letter and questionnaire were recently sent to the directors of the various venereal disease clinics, inviting them to state their needs for assistants and to specify not only the qualifications desired, but the clinical and professional opportunities offered.

In reply to this letter many applications for assistants were received, both for men and women, graduates and students. In most instances physicians with no special training in venereal disease will be considered. Any young physicians, or others recently located in New York who desire an opportunity to learn this specialty, should communicate with the Venereal Disease Section of the A. O. P. C., 15 West 43rd Street, New York City, Dr. Alec N. Thomson, Secretary.

### Viability of *Spirachete Pallida* in Excise Tissue and Autopsy Material.

George R. Lacy and Samuel R. Haythorn became interested in the question of the occurrence of *spirocheta pallida* in dead tissue, when actively motile *spirocheta* were found in the blebs and organs of a stillborn congenitally syphilitic infant which had been kept in a refrigerator twenty-six hours prior to the autopsy. They conducted experiments in order to determine the time during which the *spirocheta pallida* remain alive in dead tissue, the criteria being the motility of the organism and its ability to transmit the disease to a new host.

Their results are summarized below:

*Spirocheta* kept in serum or moist tissue, either human or animal, may retain slight motility as long as three months or more. Reliable dark-field examinations can be made on tissues or fluids collected several hours previously, provided they are kept moist and cool. Complete drying is probably fatal to the *spirocheta pallida*, since each of the rabbits used by the experimenters failed to develop syphilitic lesions when inoculated with dried *spirocheta*. This is in accord with the work of Neisser. *Spirocheta pallida* may, and in the case of the authors did, remain virulent in autopsy material for twenty-six hours or longer. —(*Amer. Jour. Syph.*, Vol. V, No. 3, July, 1921.)

### A Syphilitic Manifestation in the Nose.

Harold M. Hays says that the engorged mucous membranes, covering the turbinates and the nasal septum, if such mucous membrane is not distinctly polypoid, will invariably shrink under the application of a 1 per cent. cocaine solution, to which is added a third part of a 1:1,000 solution of epinephrin chlorid. If the mucous membranes do not shrink perceptibly under the application of such a solution there is in all probability a syphilitic infiltration of the mucosa. The nasal mucosa is first sprayed with the solution, after which pledgets of cotton immersed in the medicament are inserted into the nose. These are removed in from five to ten minutes. If the mucosa still obstructs the nose, it is evident that there is some pathologic condition of this membrane which will not allow it to shrink, probably a syphilitic infiltration.

The author reported two cases. His concluding comments were:

A Wassermann test should be made in all cases of nasal obstruction in which the obstruction is due to a thickened mucous membrane which will not shrink under the application of cocaine and epinephrin.—(*J. A. M. A.*)

### Aberrant Vessels in Surgery of the Palatine and Pharyngeal Tonsils.

Three cases of sudden and excessive hemorrhage during tonsillectomy, all resulting in death, which occurred in the practice of others, prompted J. Parsons Schaeffer, Philadelphia, to direct particular attention to the occasional marked sigmoid tortuosity of the cervical segment of the internal carotid artery, whereby the vessel is forced into intimate topographic relationship with the palatine or faucial tonsil, the usual distance of 2.5 cm. between the tonsil and the artery being obliterated. The importance clinically of the tortuous internal carotid artery, Schaeffer says, cannot be overstated, since the anomalous state of the vessels unquestionably the underlying factor in many cases of visible pulsation of pharyngeal vessels and probably of fulminant hemorrhage during or following tonsillectomy. He discusses this subject from anatomic standpoint and the clinical bearing of anatomy on surgery.—(*J. A. M. A.*)

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(Continued from page 279)

tiation from hypothyroidism, must be mentioned chronic colitis, which may also occur as a complication in hypothyroidism. The intestinal toxic symptoms of headache, lassitude, nervousness or mental torpor, loss of appetite, a light anemia, cold extremities, low blood pressure and small, soft pulse may likewise be of hypothyroid origin and lead to diagnostic errors. Two cases of the writer's series had been unsuccessfully treated by others for ten or more years for chronic colitis with intestinal toxæmia. After the diagnosis of hypothyroidism was reached, both made astonishing improvement on thyroid medication controlled by the basal metabolism.

Chronic muscular rheumatism, or mild arthritides, may be hypothyroid manifestations. As Kocher first emphasized, the muscular and joint pains of hypothyroidism may lead to erroneously considering such patients as suffering from chronic muscular rheumatism or rheumatic arthritides.

Various cachectic conditions, such as anemia or arteriosclerosis, are mistakenly regarded at times as *sui generis*, when in reality they may be due to subfunctional activity of the thyroid gland.

Mistakes as to the true nature of thyrotoxic obesity are common. Application of the usual reduction cures to such cases may lead to a profound asthenia. All cases of thyrotoxic obesity, as yet observed by the writer, have been accompanied by clinical signs of hypothyroidism, permitting of actual differential diagnosis, if properly appreciated. — (*Cal. State Jour. Med.*, August, 1921.)

#### Acute Dilatation of Heart. Together with Associated Pathology in a Case of Sudden Death.

Frank R. Menne, M.D., of Portland, Ore., reports on tissues which were removed from a man about 40 years of age who dropped dead in a pool hall, and concerning whom little is known. He was engaged in hunting coyotes, in the process of which he dug pits and blasted with nitroglycerine.

The salient features of the autopsy in the way of anatomic changes are as follows:

Acute dilatation of the chambers of the heart, marked hypertrophy of the musculature of the heart, pronounced obliterative sclerosis of the posterior coronary artery; marked senile and luetic arteriosclerosis with slight supraventricular aneurysm formation, chronic interstitial myocarditis, marked diffuse nephritis (arteriosclerosis), marked emphysema of the lungs, edema of the brain, full stomach and voluminous bowel.

The tissues are presented because of the unusual type of syphilitic sclerosis. The lesions are ridge-like and are most pronounced in the first portion of the arch. The opening of the posterior coronary artery could not be identified.

There is present also a diffuse obliterative fibrous pleuritis which is also found between the lobes of the lungs. In the absence of definitely demonstrable tuberculous lesions and in view of the character of these fibrous adhesions, it seems probable that this pleuritic process may have been of "influenza" origin and, therefore, may bear evidence of this disease in the production of the acute dilatation of the heart.

Recently it has been our experience to encounter a number of acute dilatations of the heart as the immediate cause of death in a variety of complications. It is also the experience of those doing post-mortems to find a considerable number of so-called postepidemic acute dilatations of the heart in the presence of a previously existing pathologic condition. It would appear that an influenza epidemic leaves those afflicted with a weakened myocardial musculature, especially when a lesion of the coronary arteries and a resulting fibrosis of the heart musculature pre-existed. If we might be permitted then, to draw the conclusion that this particular individual had recovered from the influenza, this together with the intrinsic pathology of the heart, and its embarrassment by the gastrointestinal engorgement and volume are the etiologic factors concerned.

It is also important to consider the possible influence of the fumes of nitroglycerine which is a well-known vasodilator. Although it is known that vasodilators are of benefit in so-called anginal spasms of the heart, their injudicious use may have an obnoxious effect. This is because a constant pronounced decrease in the blood pressure may deprive important organs of a sufficient amount of blood to enable them to carry on their functions. It must be remembered that the narrowed orifices of a diseased vascular system make it necessary for the establishment of a higher pressure, in order to drive a proper amount of blood through them. It is, therefore, extremely inadvisable to constantly attempt to approach the normal blood pressure in individuals exhibiting sclerotic lesions in the vascular system. — (*Northwest Medicine*, August, 1921.)

#### The Technic of Administering Local Anesthesia.

S. R. Maxeiner believes that novocain is thoroughly effective and the safest local anesthetic available today. It may be used

almost *ad libitum* if properly administered. Intravenous administration should be avoided. A tourniquet or adrenalin add to the duration of the anesthesia, but adrenalin solution is dangerous in the presence of a terminal circulation. Edematization of the field does not interfere with primary healing, and is the best and simplest method of producing anesthesia. Making secondary wheals is important, and when used in the abdomen all layers can be infiltrated in six minutes. Intraneural injections carry a larger percentage of failures and demands greater skill than paraneural injections or infiltration block. In the last method, a large amount of a more dilute solution may be deposited in proximity to the nerve. In circumferential infiltration, the operative field is circumscribed. This method is deprecated by the writer on account of the larger amount of solution required. In caudal anesthesia, the anesthetic is introduced through the terminal sacral foramen and is extradural. If successful, the anesthesia is excellent for work on the perineum and in the pelvis. Splanchnic anesthesia is rapidly gaining favor for abdominal operations. — (*Jour. Lancet*, June 15, 1921.)

#### Present Problem of Local Anesthesia.

A. F. Bratrud says that of the various anesthetics, quinin urea hydrochlorid used in 0.5 per cent. solution is very satisfactory, except in the skin, where it is apt to cause sloughing. It is preferable for the prolonged anesthesia. Novocain is used in 0.5 to 4 per cent. in either normal saline solution or Ringer's solution. Apothesine is not meeting all that was claimed for it. Saligenin has been giving good results, and like novocain, produces little toxicity. As much as 300 c.c. of 0.5 per cent. solution of novocain can be used in one case. Gentleness and skill in handling the tissues are essential and gained only with experience. Suggestive remarks as to fear or pain by nurses, attendants, or spectators may change the attitude of a satisfied patient into one anticipating pain, and so cause complaint from most trivial noises or the slightest pressure. Narcotics are given as a rule, the morning of the operation, usually morphine, gr. 1-6 and scopolamin, gr. 1-200, which is not too much a dose to repeat in case of necessity.

The conclusions are:

1. The subject of anesthesia, local as well as general, should be taught in all medical schools.
2. The disadvantages, such as time, infection, psychic factors, etc., are more imaginary than real.
3. Careful attention to details, better knowledge of anatomy, and improved technic are essential to success.
4. The post-operative course is a better convalescence in a shorter period of time, and complications are fewer.
5. Limitations of the field should be known, and combined anesthesia should be used as soon as there is a contra-indication to any further work under local anesthesia.
6. It is not the well-organized clinics with trained anesthetists that should have knowledge of this subject, but it is in the rural districts and hospitals without consultant or visiting anesthetists that it is important.
7. The future of local anesthesia depends upon the enthusiasm of the surgeon, knowledge of the subject, and, with these, the widening of the field of usefulness. — (*Jour. Lancet*, June 15, 1921.)

#### Span of life Increasing.

The span of life of man has lengthened fully four years within the last quarter of a century, in spite of the extra hazards which have come with twentieth century progress.

So declares Dr. George W. Hoglan, secretary of the American Insurance Union, which held its quadrennial meeting in September.

"Within another generation the allotted three score years and ten will be a thing of the past," said Dr. Hoglan, who bases this hopeful prediction on the mortality statistics of the A. I. U.

"Improvements brought about in sanitation, the nation-wide anti-spitting fight and other vital steps forward have all contributed toward increasing man's longevity," he continued. "While there has been a certain amount of sentiment over the passing of the horse, which has become practically extinct in the city, the dangers of epidemics have been greatly reduced, because of better sanitary conditions. Severe epidemics of typhoid and malaria, which formerly took such a huge toll of life, no longer are known."

Dr. Hoglan said that the women of the A. I. U., who comprise 30 per cent. of the membership, in 27 years have contributed but 28 per cent. of the deaths.

A slight increase in deaths among men from 45 to 60 years of age has been counterbalanced by a more favorable showing among men in the earlier and later years, according to A. I. U. tables.

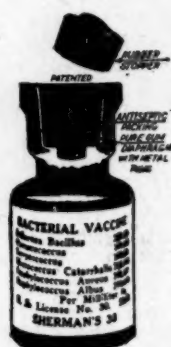
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The preparation is an ideal one as a mouth wash, gargle, and as a spray to the nose and throat. In addition to the antiseptic effect of Chlorazene, we have the solvent action of sodium bicarbonate and the cleansing and stimulating action of the salt. Aromatic Chlorazene Powder should replace the widely advertised and much used liquid antiseptics now so generally advertised to the laity. Preparations of this class are rather pleasant to the taste, but from a germicidal point of view, decidedly inefficient. A solution of Aromatic Chlorazene Powder (made by dissolving a teaspoonful in a glass of water) has a germicidal action from 10 to 20 times as great as such substances as Liquor Antisepticus, and the various similar proprietary preparations.

Not only can Aromatic Chlorazene Powder be used as an antiseptic to the nose and throat, but it can be employed for any purpose for which antiseptics of this class are ordinarily prescribed; for instance, as an application to wounds, and as a douche. We particularly recommend it, however, for nasal and oral work for the use of physicians and dentists.

### Range of U. S. Public Health Service Work.

"Glad as the U. S. Public Health Service has been," says Surgeon General H. S. Cumming, "to do its part in the hospitalization and care of the ill and disabled soldiers with whom its officers had become so well acquainted while serving in the Army Hospitals in France and elsewhere, this duty did not constitute a part of the Public Health functions of the Service but was undertaken through patriotism and because the Service was the only Government agency that had an organization and hospitals available when the need came. Later its assignment to this duty was made a matter of law.

"From March 3, 1919, when this law went into effect, to May, 1921, when the hospitalization and care of nearly half of these patients was transferred to the War Risk Bureau, the number of former military patients in the charge of the Service increased from 990 to 25,000, with indications of still further

increase. From the first the number had increased much faster than the total capacity of the Government hospitals could be extended; and almost from the first the Service was compelled to place about two-thirds of its patients (10,500 on May 1, 1921) in private hospitals under contract.

"Responsibility for these 10,500 patients has already been restored to the War Risk Bureau; and, if bills pending before Congress become law, the hospitalization of the patients cared for in Government hospitals as well as in "contract" hospitals will rest with the War Risk; and the Public Health Service will merely render hospital care to those whom the War Risk assigns to it.

"This will enable the Service to turn a much larger share of its energies to its traditional duty of protecting the country against the importation of foreign disease; conducting scientific research into important problems involving the cause, treatment, and cure of preventable or communicable disease; investigating the diseases to which working-men are subject by reason of their employment; co-operating with the States in the control of epidemics, in rural hygiene, child hygiene, venereal disease and so on.

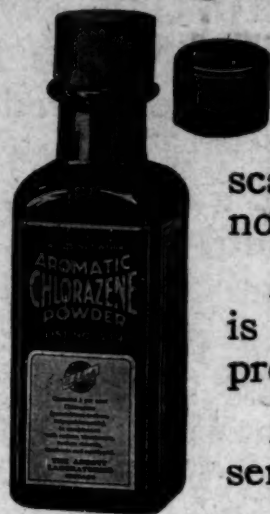
"The Marine Hospital Service, which developed into the Public Health Service, was created in July, 1798, to furnish medical care to sick and disabled American merchant seamen. Hospitals were built at the principal seaports and later on some of the larger rivers and the Great Lakes.

"The officers of the Service at the coast hospitals were naturally the first to come into contact with such diseases as cholera, yellow fever, and small-pox when imported from abroad and were able to render aid to the State authorities in enforcing quarantine measures. Later, the States, one by one, turned over their quarantine stations to the Service, New York being the last to fall into line.

"In March, 1890, Congress authorized the Public Health Service to co-operate with State and local health agencies in preventing the interstate spread of disease. The co-operation thus initiated has been extended to many other forms of health work and has become a settled policy. Its workings have been exceedingly beneficent, for they have brought the experience gained from the whole country to bear on each particular problem in each particular place. They have also incited the different States to appropriate money for their own health needs



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in order to obtain Government leadership and other Government assistance. On an average the country gets about \$5 worth of effective health work for every dollar the Government expends in this way.

"Assistance in the control of yellow fever, smallpox, and other communicable disease led directly to research into their causes and to educational work to end them by informing the country of what had been discovered and how to make use of it. For the research work, Congress established in 1902 the Hygienic Laboratory of the U. S. Public Health Service which rapidly expanded until today it is one of the foremost research institutions of its kind in the world. The results of its studies in checking disease, reducing suffering, and lengthening human life are incalculable.

"In 1912 the Service was authorized to investigate the "diseases of man," and under the authority thus conferred it has made some very important contributions to the control of disease. To mention only a few, the studies of Anderson and Goldberger on measles showed that the disease was infective during the first three days only, thus rendering unnecessary the long periods of quarantine that were formerly in vogue; the extensive investigations of Stiles on the prevalence and on life history of hookworm led to effective measures for the control of this widespread cause of physical inefficiency; the work of Lumsden in rural sanitation resulted in simple and effective methods for the safe disposal of human excreta and in the extensive adoption of modern methods in rural public health administration; the many sided studies dealing the malaria have been of inestimable service in devising practicable control measures for this scourge of the Southern States; the discovery of the identity of "Brill's disease" with typhus fever by Goldberger, and the working out of effective methods for controlling the disease by delousing has provided a barrier to the introduction of this pestilence into the United States; the painstaking investigations by Goldberger regarding pellagra have disposed of the various theories previously advanced as to the cause of this disease and have definitely placed pellagra in the class of diseases arising from deficiency in the diet, thus furnishing the means of preventing and treating this important malady; the work of the Service in the field of industrial hygiene has thrown much light on hitherto obscure factors in the causation of certain industrial fatigue, and other equally important problems; the investigations made by the Service

in the field of mental hygiene have helped in dealing with the control of venereal diseases, with the problem of juvenile delinquency, and with feeble mindedness, the studies of the health of school children and the sanitation of rural schools have done much to improve conditions for this important part of our growing citizenship; the careful statistical investigations of sickness among the working classes have furnished much useful information for devising plans for dealing with this vast problem. Altogether the Public Health Service has contributed in many different ways to the successful carrying out of measures for the prevention and control of disease and the promotion of public health.

"Recently," added the Surgeon General, "the Service has sent its surgeons to help in flood work at Pueblo; in typhus eradication among Indians in southwest; in typhoid fever work at Louisville; in tick fever protection in Montana; in tuberculosis and child hygiene in Utah; and in making the national parks safe and sanitary for travellers. Latest of all it has launched a campaign against pellagra, which has given indications of becoming dangerous, owing to the economic depression among farmers and especially among the tenant cotton growers of the South, who have been rendered practically penniless by the condition of the cotton market and are forced to live on salt pork, cornbread, and molasses, which, when eaten exclusively for a few months are almost certain to cause pellagra.

### Undescended Cecum and Veriform Appendix.

A. F. Jonas, Omaha, Neb., reports two cases. In one case he noticed an absence of the cecum in its usual location; very extensive adhesions were encountered in the right hypochondrium; breaking through these, a large, fetid abscess containing 5 or 6 ounces of pus was opened. The cavity extended high up under the liver, which formed its upper and outer wall; on its inner side it was limited by the duodenum, and its base was composed of the cecum and omentum; in the cavity itself, reaching with its tip to the cystic duct, lay concealed the gangrenous appendix. In the second case, a mass in the right hypochondrium proved to be a large abscess containing much fetid pus. A rather long and partly necrosed and perforated appendix and the cecum. It seemed to form the lower wall of the abscess. The duodenum, liver and omentum made up the lateral walls.—(J. A. M. A.)

### Sarcoma of the Prostate.

Sarcoma of the prostate is a disease worthy of report, because of its rarity. Maximilian Stern and I. Sidney Ritter, of New York, record the thirty-sixth of its kind found in the medical literature to date.

In 1839, the first case of sarcoma of the prostate was reported by Stafford. It was a melanotic tumor in a child five years of age.

Ewing states that sarcoma very rarely occurs in the prostate, and that many of the cases so diagnosed are of uncertain nature.

Kettle states that sarcoma of the prostate rarely occurs.

Thompson in 1858 found six cases of sarcoma of the prostate in the medical literature reported to that date.

Kaufman and Burckhardt both reported in 1902 that they were able to collect 24 cases of sarcoma of the prostate in medical literature to that date. Kaufman further states that of the twenty-four, three occurred in infancy, seven in the first decade, and only seven between the ages of 30 and 70 years.

Bland-Sutton quote Proust and Vian as having collected up to 1907 thirty-four case histories of sarcoma of the prostate, the youngest occurring in an infant five months old, the oldest in a man 73 years old. Of the cases reported, about 50 per cent. occurred in individuals under eight years of age.

Hugh Young, of Baltimore, in 1910 reported the thirty-fifth case, occurring in an adult, which was of the mixed cell type.—(*Am. Jour. Surg.*, August, 1921.)

### Automatic Method for Serial Blood Pressure Observation in Man.

M. A. Blankenhorn, Cleveland, has devised an apparatus which automatically makes oscillogram tracings, from which the systolic and diastolic blood pressure can be measured directly, with a workable degree of accuracy. The apparatus is contained in a cabinet which can be rolled to the bedside, and when the cuff is applied to the arm and connection made with a rubber tube of convenient length, the cabinet may be closed and satisfactory tracings obtained hourly, for a period of from eight to fourteen hours, with no further attention from the operator and no more co-operation from the patient than that he remain perfectly quiet during the brief time that the cuff is inflated. The patient may assume any position in bed between times, and unless he is unduly wakeful, he sleeps through the night without interruption. He is provided with a push button which he keeps within reach to signal at the end of each hour if he is awake. The tracing, when studied, gives the systolic and diastolic pressure as measured by a millimeter scale from the base line to characteristic points on this tracing, and if the patient is intelligent, the tracing should also show when he was awake.—(*J. A. M. A.*)

### Syphilitic Iritis.

Among 228 white patients with early secondary syphilis in the Johns Hopkins Clinic, there were four, or 1.76 per cent., with acute iritis; among 279 negroes, iritis occurred in thirty-six, or 12.9 per cent. Iritis was associated thirty-seven times with generalized secondary syphilids and was distributed according to race and type of rash. The frequency of iritis in association with follicular syphilids in the negro is striking. Of the entire series of forty-seven patients with iritis analyzed by Ernest L. Zimmermann, Baltimore, only six, or 12.8 per cent., were neurosyphilitic. Iritis occurred in more than 10 per cent. of all cases of early secondary syphilis in the negro, and was most often associated with follicular syphilids. Abnormalities in the cerebrospinal fluid of partially treated syphilitics with iritis occurred with no greater frequency than in the fluids of treated patients who had not had iritis.—(*J. A. M. A.*)

### Specific Precipitin Reaction of Lens

The precipitin reactions of the lens of certain mammals (and of the chicken) are lens-specific, and the lens, at least of the mammals in question, does not appear to contain any species-specific precipitinogens; hence according to Ludvig Hektoen, Chicago, the lens protein may be regarded as chemically distinct and as identical in diverse species.—(*J. A. M. A.*)

### Hepatic Jaundice.

In simple hepatic jaundice, as well as in the so-called catarrhal jaundice, there is no remedy that will give such prompt and positive results as Chionia. It can be relied on to produce a true cholagogue effect without purgative action. One or two teaspoonfuls three times a day will soon cause the bile to flow freely with early restoration of the detoxicating action of the liver.

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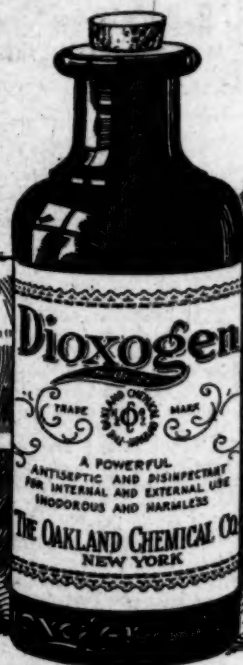
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### Treatment of Gonorrhea.

Cattier cites Lebreton's study of the semen of persons supposed to be quite cured of gonorrhea. Fully 80 per cent. of those who had supposed themselves fully cured showed gonococci in the semen, examined within an hour. Cultivation of the seminal fluid is thus the best guarantee that the patient is or is not a carrier of gonococci. Cultivation of the secretions from the uterus at the beginning of menstruation may prove to be the best equivalent for this in women. Unsuspected gonococcus infection of the urethra in the wife is one of the most common causes of supposed relapse of the husband.—(*Progrès Médical*, Paris, February 5, 1921.)

### Gastralgia.

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Cactina Pillets, according to Elster, give wonderful results in neurotic hearts, where the myocardium is weak.

### Differential Diagnosis of Hyperthyroidism in Children

In the presence of a slight growth anomaly in a child, it may be extremely difficult to fix upon the endocrine organ or organs at fault, contrary to textbook statements, says N. W. Janney, of Los Angeles. Numerically, the thyroid cases are most frequent. With this in mind, a carefully applied therapeutic test with thyroid extract may solve the difficulty. Should an examination demonstrate that but one system of organs is chiefly affected, it is probable that we are not dealing with hypothyroidism. Thus in a child with defective mentality, should the clinical findings be confined to the central nervous system, we are confronted by a case of true idiocy and not cretinism with lowered psyche.

Hypopituitarism in typical expression can scarcely be confounded with hypothyroidism. In mild cases the diagnosis may not be so easy. The feminine fat distribution (waist to lower third of thigh) and pituitary fossa changes usually suffice to distinguish this condition. The x-ray shows less general bony growth retardation than in hypothyroidism. The laboratory aids to diagnosis are here at fault, as a general similitude to the findings in hypothyroidism exists. A very low basal metabolism is in favor of hypothyroidism. Eunuchoidism is distinguished by the prominence of the sexual anomalies, the trochanteric fat padding (Engelbach and Tierney) and the unusual length of the extremities. True infantilism is merely a condition of cessation of development at an early age. In a case investigated by the writer, which seemed to belong to the rare variety of infantilism described by Peltauf, the metabolism was normal. True nanism refers to a very small adult human being, symmetrically developed in all respects. Mongolism is still confused at times with hypothyroidism, though the mutual resemblance in typical instances is but very superficial. The following are the chief points of difference. The Mongol has a curious Oriental expression, silken hair, slanting eyes and button-like nose, a pointed tongue, small gracile hands with incurving little fingers. The delay in the ossification is but slight. Rickets and chondrodysplasia are easily distinguished by röntgenological examinations of the bones showing typical lesions.